AMERICAN ANNALS

OF

The Deaf,

Organ of the Convention of American Instructors of the Deaf,

EDITED BY

EDWARD ALLEN FAY

UNDER THE DIRECTION OF

R. O. JOHNSON, OF INDIANA, A. L. E. CROUTER, OF PENNSYLVANIA, J. W. JONES, OF OHIO, J. N. TATE, OF MINNESOTA, AND N. F. WALKER, OF SOUTH CAROLINA,

Committee of the Conference of Superintendents and Principals of American Schools for the Deaf.

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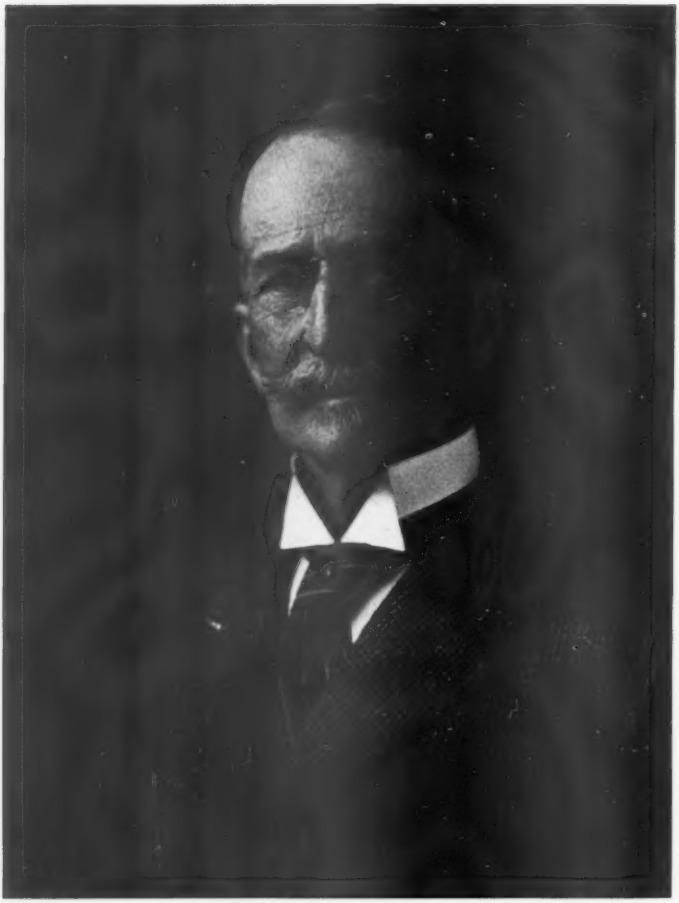

EDWARD MINER GALLAUDET
1837-1917

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EDWARD MINER GALLAUDET

Edward Miner Gallaudet was born in Hartford, Connecticut, February 5, 1837. He was the son of Thomas Hopkins and Sophia Fowler Gallaudet. His father was the first Principal of the American School for the Deaf at Hartford and is honored as the founder of the education of the deaf in America; his mother was one of his father's earliest pupils. He inherited from his father a keen intellect, a rare gift of persuasion, and a philanthropic spirit; from his mother a vigorous constitution, personal comeliness, practical sagacity, and radiant vitality.

He was graduated from Trinity College at the age of nineteen and even before graduation began his life work as a teacher of the deaf in the Hartford School. His purpose, formed while still a student in college, was to establish an institution in which the deaf might have equal opportunities with hearing youth for receiving the higher education. How that purpose should be accomplished he did not know; the only way that then seemed feasible to him was to induce some philanthropic millionaire to endow the proposed college with the necessary means of support, and the desired millionaire did not appear.

Eighteen months after he began teaching at Hartford the opportunity came through an invitation to

establish a school for the deaf in Washington, D. C., for which an act of incorporation had been obtained from Congress. The invitation was only to take charge of a small local school without equipment and without endowment, but he instantly saw in it the possibility of the future realization of his cherished purpose. Seven years later the vision was no longer a dream. The college, afterwards named Gallaudet College in honor of his father, was established in 1864 through the granting by Congress to the Columbia Institution the power to confer collegiate degrees and he was elected its President. Liberal appropriations for its support were made and have been continued during the past fifty-three years, chiefly through Dr. Gallaudet's personal influence so long as he was its head. People sometimes wondered that he was so successful in obtaining appropriations from Congress. The secret lay in his strong personality. President Garfield, for several years a member of the committee on appropriations, once said, "Nobody comes before the committee who makes so favorable an impression upon it as Dr. Gallaudet." Beautiful buildings and grounds, generous support, and a hundred free scholarships, which are the equivalent of a large endowment, are the permanent result of his untiring labors.

Dr. Gallaudet was the leading advocate in America and throughout the world of the Combined System of educating the deaf. In 1867, when oralism had scarcely any friends among teachers of the deaf in this country, he strongly urged that instruction in speech and speech-reading should be given to all deaf children capable of profiting by it, and it was chiefly through his efforts that oral teaching was introduced into the older schools; but he maintained that no single method is suitable for all deaf children and that such method

should be chosen for each child as seems best adapted for his individual case. He believed also that the language of signs, the natural language of the deaf, should have a recognized and honorable place in every school.

In 1886, at the invitation of the British government, he appeared before the Royal Commission on the education of the deaf and his testimony in favor of the Combined System, published in the report of the commission, exerted a wide influence throughout the world. In 1912 the French Republic conferred upon him the Cross of Chevalier of the Legion of Honor "in recognition of his long and successful labors in the cause of the education of the deaf."

Dr. Gallaudet was the author of a "Popular Manual of International Law," used as a text-book in American colleges, and the "Life of Thomas Hopkins Gallaudet." He also contributed numerous articles to magazines and reviews, published many pamphlets, and delivered frequent addresses before learned and philanthropic societies in the United States and Europe upon the education of the deaf.

In 1895 Yale University conferred upon him the honorary degree of Doctor of Laws, largely in recognition of the value of his work on international law, above mentioned. He had received the same degree many years before from Trinity College and Doctor of Philosophy from Columbian (now George Washington) University.

On the incorporation of the Convention of American Instructors of the Deaf in 1895 he was elected its president and at every subsequent meeting down to the last held in Hartford in 1917 was unanimously re-elected.

During his long residence in Washington Dr. Gallaudet was prominent as a citizen. In governmental

affairs he was active in promoting civil-service reform; in educational matters, apart from his special work in Gallaudet College, as a trustee of George Washington University and Howard University; in religion as a trustee and elder in the Church of the Covenant and director and president of the Young Men's Christian Association; in literature and science as a member of the Literary Society, the Historical Society, the Philosophical Society, and other kindred organizations, in most of which he was honored with election to the highest offices. Among his intimate friends were the best men distinguished in political and social life.

In 1910, after fifty-four years of active service, Dr. Gallaudet retired from the presidency of the College and in 1911 he returned to Hartford to live. Soon after this change of residence he was elected a member of the Board of Directors of the American School for the Deaf. To the centennial celebration last July of the founding of this School, and the meetings of the Convention of American Instructors of the Deaf, the American Association of the Deaf, and the Alumni of Gallaudet College, held in connection with the celebration, he had long looked forward with joyful anticipation. The members of these bodies regarded him as their father and guide and hoped on this occasion to show their esteem and affection for him personally, as well as to commemorate the noble work of his father. It was a great disappointment both to him and them that, when the time for the celebration and other meetings came, he was unable, on account of failing strength, to take any active part in them. But he bore the disappointment with his usual serenity, contenting himself with sending and receiving loving messages. Every afternoon, moreover, his friends were permitted to call upon him at his residence and one day

he was able to go to the school grounds and, seated in an automobile, exchange greetings with his old college students.

Passing his declining years in the place of his birth, which he had always loved, still taking a keen interest in public affairs, and especially in the education of the deaf, he was cheerful and happy to the end. He suffered no bodily pain and he could rejoice in the remembrance of a beneficent life, in the gratitude and affection of those for whose welfare he had labored, and the good will and esteem of his fellow men,—"the past unsighed for, and the future sure." His spirit quietly passed away on Wednesday evening, September 26, 1917.

Dr. Gallaudet was twice married; first to Miss Jennie Fessenden, of Hartford, and after her death to Miss Susie Denison, of Royalton, Vermont. He leaves three sons and three daughters: Miss Katharine F. Gallaudet, of 128 Woodland Street, Hartford, Connecticut; Mrs. William B. Closson, of Newton, Massachusetts; Denison and Edson F. Gallaudet, aeroplane manufacturers, of East Greenwich, Rhode Island; Rev. Herbert D. Gallaudet, late of Bridgeport, Connecticut, now a captain of artillery in the army of the United States; and Mrs. John W. Edgerton of New Haven, Connecticut.

E. A. F.

ENOCH HENRY CURRIER

Enoch Henry Currier devoted forty-five years of his life to the educational uplift of the deaf. He was Principal of the New York Institution for the Instruction of the Deaf and Dumb for almost twenty-five years; to be exact, just twenty-four years, six months, and nineteen days. His elevation to the highest office in the Institution was preceded by over twenty years in the class-room.

In the zenith of his success, death struck him down with all his armor on. Following months of incessant and nerve-racking work, embracing the three-fold duties of directing the Institution's educational and administrative affairs to the climax of another Commencement Day, the presentation of historical data in connected form at the commemoration of the one hundredth anniversary of the granting of the Institution's Charter by the State Legislature, and the planning and preparation of an extraordinary exhibit for the Centennial Celebration of the First American School for the Deaf, he had gone to his summer home at Essex on Lake Champlain for a short rest. There, at his bungalow on Cannon Point, he was stricken with cerebral hemorrhage and, after three days in a condition of semi-coma, passed peacefully away. His death occurred on Sunday, August 19, 1917, and the funeral service and interment took place Wednesday, August 22, on his sixty-eighth birthday and at his birthplace, Newburyport, Mass. His devoted and bereaved wife, who was Miss Charlotte Amelia Lewis of Oxford, New York, survives him.

Enoch Henry Currier was a son of Enoch Gerrish Currier and Jane Hill. On his father's side he is de-

ENOCH HENRY CURRIER
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scended in the seventh generation from Richard Currier (born 1617), of Salisbury, Massachusetts. His mother was a descendant of the Hills of Essex County, England, and her father, Jonathan Hill, was a soldier at Bennington in 1777, and later with Colonel Hale's second regiment "in the Jerseys" in 1778. His parents lived to celebrate their "golden wedding" at the Currier Homestead, Talleyrand Place, Newburyport, and were well and active for many years after, the father reaching the ripe age of fourscore and ten, and his mother falling into eternal sleep in her ninety-ninth year. To both these good parents, Mr. Currier was a docile and dutiful son. Almost up to the time of her death, his mother wrote him regular letters of loving admonition, and he, who was as adamant on school matters and business propositions, would be her contrite and submissive boy again and tenderly respond.

Reared in a home of comfort and culture, Enoch Henry Currier enjoyed educational advantages which were comparatively rare in his boyhood days. He was schooled and tutored through mathematical and classical courses up to the point of matriculation at Amherst College, but an accident to one of his eyes compelled him to relinquish study and forego his cherished aspirations of becoming a minister of the gospel. Gallaudet College in 1892 conferred upon him the honorary degree of Master of Arts.

At the age of twenty-three, he was induced to enter the profession of teaching the deaf. That was in the year 1872, and it was destined to be his life work. He made a study of the several methods of educating the deaf under that master in the art of awakening dormant mentality, Dr. Isaac Lewis Peet. He had the additional advantage of association with such colleagues

as Van Nostrand, Pettingell, Cooke, Westervelt, Jenkins, and Clarke, whose methods he studied with great pains and thoroughness.

He made a special study of the anatomy of the throat and ear, and qualified as an expert in vocal physiology. To this was added considerable practice in cultivating speech and inculcating the ability of lip-reading. In 1878 he became Professor of Articulation, Lip-Reading, and Aural Development. He gave much study to the development of the latent sense of hearing, and became one of the best-informed men in the profession on that particular subject. He invented the duplex conico-cylindrical ear tube, by which the partially deaf could be instructed in groups of four or more at the same time.

However, he did not confine all his efforts to work along the lines of oral instruction. He was an accomplished lecturer in the language of signs, and could sway children and adults alike with the charm and force of a graphic delivery.

On the first day of January, 1893, Dr. Isaac Lewis Peet was made Emeritus Principal of the school, with a handsome pension, and Mr. Currier succeeded him. In those days there were two heads, a Superintendent and a Principal. This division of authority engendered friction, so the two offices were combined in one, under the appellation of Principal, and on March 4, 1893, Mr. Currier became Principal of the Institution.

From the outset of his incumbency he initiated improvements affecting both the educational and material welfare of the Institution. It would be difficult to catalogue the beneficial changes that marked the course of the passing years under his principalship. Every radical step required the approval of a directorate composed of keen business men, whose integrity

and wisdom, influence and power, identified them as a group of individuals who singly and collectively exerted a compelling effect in promoting civic welfare.

The Fanwood pupilage is unique in that it is drawn from a cosmopolite population, and the children betray marked differences in mind and manner due to diversity in heritage and tradition. Therefore, to approximate correct standards in morale and intellectual conception, it was necessary to have basic influences for the common good. One of the most important of the expedients adopted was the uniforming of all the pupils, the boys in a neat cadet uniform of grey, and the girls in tasteful and serviceable dresses of blue serge. Thus, whatever the advantages or deficiencies of their home environment, at school all were raised to the same level, and the same standard of habits in demeanor and effort were required of them.

Next came the military drill, which imbued them with a spirit of patriotism, made prompt obedience a habit, inculcated the virtues of order, activity, and cleanliness, and taught them to hate the cowardice of doing wrong. The military instruction has developed a battalion of cadets, which drills and marches and manoeuvres with a snap and unified precision that is marvelous to behold. The scores or more of trophies captured in competition with military organizations of the hearing is ample testimony of their ability in the school of the soldier. Several of the large institutions for educating the deaf have instituted the military feature, with the aid of instructors furnished from among the graduates of Fanwood.

When Principal Currier inaugurated the teaching of band and field music, the apparent impossibility of such an innovation amused, rather than interested, the profession of teaching the deaf. That was many years

ago, and since then mirth has made way for astonishment when this band of deaf musicians demonstrates the most wonderful ability to render the sweetest of strains in perfect harmony. In this corps of deaf musicians there are, at the present time, about forty pupils, for year after year, as the best of them have graduated, others have taken their places and maintained the reputation for efficiency and accomplishment in music set by those who had preceded them. This deaf band's repertoire comprises all of the famous military airs and innumerable others, which thrill the listeners and never fail to bring spontaneous applause.

Upon assuming the office of Principal, one of Mr. Currier's first acts was to secure the passage of a bill by the state legislature to reduce the age of admission to school of deaf children to five years of age. Then he introduced the kindergarten, the kitchen-garden, and later the Montessori method. He was among the first to utilize rhythm and musical vibrations in the training of the voice. Ever on the alert for new ideas, he overlooked nothing that might conduce to the progress and efficiency of the school. A well-equipped gymnasium was provided, with a physical director in charge, and instruction in cooking was added to the curriculum. Both these advantages are for boys and girls.

To outline the details of the school system would require a great deal of technical writing. Its merits can be judged by the success of its graduates. Among them are many who talk well, can read the lips of intimates with ease, and have considerable ability in understanding the lip motions of casual strangers. They are invariably intelligent and capable and size up to the demands of industry, as they have been given a good working knowledge and adequate skill in a useful and

profitable trade. They know how to use the knowledge that has been imparted to them and to live clean and worthy lives. These are results that the public recognizes as educational success.

Principal Currier was a strong advocate of the Combined System of educating the deaf. He sometimes called it the eclectic system. In the school over which he presided, he offered to every pupil an opportunity to be educated by the oral method. In fact, he was an enthusiast on oral teaching, and was regarded as an authority on speech and lip-reading, as well as auricular instruction and voice culture. Although signs were not allowed in the class-room, they were used in chapel services, and for lectures and addresses when the pupils were in assembly. Neither were they repressed in the joyous freedom of the playground. From the wealth of his long practical experience, which covered more than two-score years of close observation and earnest study, he announced his conclusions as follows:

The Combined System. Why?

It is not generally understood that in the term deaf-mute are included four widely differing subclasses—the semi-deaf, the semi-mute, the congenitally deaf with ability to perceive sound, and the congenitally totally deaf unable to perceive sound.

The honest, practical common-sense, which recognizes the diverse fundamental needs of these four sub-classes included in the term deaf-mute, and rejects the convenient theory that conditions are alike in all, compels the use of the Combined System, so-called:

A system which, recognizing the dissimilarity of its subjects, abandons Procrusteanism and insists on speech and the understanding of speech signs by such only as can be best advanced thereby; employs manual spelling and writing for those who from any mental or physical condition cannot

develop profitable speech or an ability to read lip signs; develops the dormant auditory apparatus for enlightenment and enjoyment whenever possible; and permits and encourages gesture and pantomime when the English vocabulary is not sufficient, rather than repress the expression of thought until the proper English equivalent is acquired.

A system which considers the condition, necessities, and practicable possibilities of the individual and invokes the aid of every known means or method to lead from ignorance.

The system which has enabled ninety-six per cent of the graduates of the New York Institution for the Instruction of the Deaf and Dumb to become self-supporting men and women.

The system which developed the leaders who to-day, in the city of New York, are the promoters, directors, and conductors of religious society, fraternal organization, and social enjoyment among the deaf.

Principal Currier was a man of wonderful initiative. As the Directors of the Institution, in the handsomely engrossed resolutions presented him on the fortieth anniversary of his connection with the Institution most truthfully affirmed, he possessed "an originality almost amounting to genius."

As an executive he was unexcelled. His helpers, in teaching and in administrative capacity, were all chosen for especial fitness for the duties to which they were assigned. He was a wonderful reader of men, and his influence upon them and their work always enlisted their best energies and capabilities. The Institution personnel was so organized, so finely adjusted, that the slightest error or deviation from the correct course was instantly noted by the Principal and the proper corrective measures quickly applied. It was an example of efficiency, with all striving together for the general advancement.

Early in his administration, Principal Currier removed the clumsy and obstructive buildings that marred the landscape and increased the cost of maintenance, and substituted edifices that were economical, handsome, and durable. The entire group of buildings were made safe and sanitary for the purposes of the Institution's work. The grounds were graded and made beautiful, the playing space leveled and enlarged, the walks and driveways planned and paved, so that at the present day the whole place presents a perspective so pleasing that visitors go into raptures over it.

In business matters and in the regulation of the affairs of the Institution, Mr. Currier was most inflexible and exacting. In social life he was one of the most charming of men, courteous, considerate, and kind. He had the rare power of putting the diffident at ease and adapting his conversation to the time, the place, and the people with whom he was associating. The deaf people not only respected and esteemed him, but they also loved him, as witness the various honorary affiliations in their societies, and the several substantial testimonials they presented him, one of them a massive silver cup, upon the bowl of which are engraved the names of over two hundred of the donors. Many an unruly schoolboy, who winced under the fine scorn and stern severity for misdeeds that demanded reproof, grown to manhood, had his name carved on that silver cup and was proud to call Mr. Currier his friend.

As a writer he was clear and concise. He wrote upon many topics relating to the education of the deaf, among them being "Speech Teaching to the Deaf," "Aural Development," "New Aids to Hearing," "The Manual Alphabet in the Public Schools," besides

exhaustive discussions in the Annual Reports of the New York Institution upon educational problems.

He was a member of the New England Society, the American Geographic Society, the Manhattan Heights and Masonic Clubs, and in his younger days was Secretary of the Resolute Boat Club, composed of residents of the aristocratic region of Washington Heights, and which included young men who have since became famous in many of the higher spheres of life—such as the Putnams, Folsoms, Wheelocks, Grinnells, Whitmans, Knapps, Fosters, and others. In organizations that concerned the deaf, he was an active member of the Convention of American Instructors of the Deaf and the American Association to Promote the Teaching of Speech to the Deaf; a Life Member of the Church Mission to Deaf-Mutes and the Empire State Association of the Deaf; an Honorary Member of the League of Elect Surds, the Deaf-Mutes Union League, the Clerc Literary Association of Philadelphia.

His death brought a wave of sorrow to teachers, officers, pupils, and graduates of the school. His ambition to lead in the celebration of the centenary of the Institution in the summer of 1918, has been frustrated by the decree of God.

He was a man of grand manners, above the medium height, of strong and symmetrical build, clean and careful in dress. He was a delightful host, a cheerful companion, a generous friend. We shall never look upon his like again.

EDWIN ALLAN HODGSON,
Instructor in the New York Institution,
Washington Heights, New York City.

OUR AIM IN TEACHING THE DEAF

Before we answer the question, "What should be our aim in teaching the deaf?" it will be well to ask and answer one or two other questions, since therein we shall find the argument necessary to justify our final answer. We shall then understand better what we are "driving at" and in the end come to a logical conclusion of the whole matter. For when we have a purpose in view we want to know why we have that purpose, and before we can say "How" and "What" we must know "Why?" or "What for?"

A party setting out to explore the Arctic Sea does not load up with ice-cream freezers, or lay in a supply of summer clothing, or carry a stock of fans to trade with the people who sit around on ice chunks and live in snow houses. They carefully select some fur-lined clothing with an eye to the conditions they must meet and they lay in a supply of gum-drops in consideration of the tastes of the natives whose good will they wish to obtain.

Hence, before we can answer, "What is the aim in teaching the deaf?" we had better ask, "Where are they going to live?" and "What are they going to do after they leave school?" When we have answered these queries we shall have found the key to the solution and can then tell "How" and "What."

If the deaf after leaving school were going to live by themselves, on

> Some bright little isle of their own,
> Far away on some measureless sea,

the solution would be greatly simplified. But the deaf-colony business never has and never will be popu-

lar. As it is, the deaf must continue to live in the world into which they are born, and just as they find it. The deaf person looks around and finds himself in the midst of 1499 other people that look just like himself but the 1499 other people can hear. The only way he can communicate with them is by speech or writing. He must "live, move, and have his being" among people who can hear; work for and with them; find his pleasure among them; and, finally, he must live their life rather than they his. His whole environment is that of a hearing world, although he himself knows no sound.

We find him in the first place at a disadvantage as regards his environment. Our aim, therefore, in a general way, is to prepare him to overcome this disadvantage. It is wrong to tell a deaf child that he is the equal of his hearing brother in all respects. We do this, of course, in an optimistic desire to encourage him and instil self-confidence, which he certainly needs. But beware lest we give him a false estimate and an erroneous view of life. As he grows older and mingles with his fellow men the truth is often forcibly and sometimes painfully brought to his consciousness. Rather should we aim to minimize this disadvantage, teach him to overcome it, and encourage him in the endeavor. Rather recognize the fact and instil into his mind the courage to fight against the handicap which nature has imposed in the race he must run toward the goal of success.

Let us now take up the next question, "What is he going to do after he leaves school?" Below is a list of occupations to one of which the liberally educated hearing man may aspire. We may call them "ports of entry" and if the hearing man has a college education he may trim his boat and set sail to one of them.

This does not exhaust the list by any means but is sufficient for the purpose.

Ports of Entry for the Hearing College Man

1. Literary	Scholars.	Writers.
	Teachers.	Librarians.
	Preachers.	School Superintendents.
	Lawyers.	Supervisors of Charities.
	Editors.	Efficiency Engineers.
2. Scientific	Mathematicians.	Teachers.
		Engineers.
		Architects.
		Astronomers.
	Physicists.	Teachers.
		Mechanics.
		Electricians.
	Chemists.	Teachers.
		Manufacturers.
		Metallurgists.
	Naturalists.	Botanists.
		Zoologists.
	Biologists.	Physiologists.
		Anatomists.
		Pathologists.
		Physicians.
		Surgeons.
3. Artistic	Painters.	
	Sculptors.	
	Architects.	
	Decorators.	
	Illustrators.	
	Etchers and Engravers.	
	Musicians.	
4. Mercantile	Merchants.	Railroad Men.
	Manufacturers.	Accountants.
	Bankers.	Publishers.

5. Political....	Statesmen.	National Officers.
	Diplomatists.	State Officers.
	Consuls.	Municipal Officers.

Now let us examine this list and find out how many of these occupations are open to the graduate of Gallaudet College. There are five groups, and under these, counting "teachers" and "architects" but once, there are forty-two different occupations or professions listed. Of these we can count only eleven to which the deaf college graduate as a rule may aspire with prospect of success, if we base our statement upon precedent. These are teachers, preachers, editors, architects, chemists, botanists, painters, sculptors, etchers and engravers, electricians, and accountants. To these might be added the following occupations in which the deaf in limited numbers have succeeded; lawyers, writers, manufacturers, illustrators, publishers, and state and municipal officers. That is a total of seventeen for the deaf out of forty-two to which the hearing man may aspire, or less than one-half.

The professions under "biologists" may be entirely eliminated. Those under "political" have so far been confined to recorder of deeds and one or two minor offices. In Iowa a deaf man is state printer and another is a member of a Board of Education, though this office is without compensation. But political preferment is rarely sought by, much less often offered to, the deaf man. To the inalienable right of every American boy to aspire to the presidency there seems to be one exception.

Thus the higher professions offer little opportunity to the deaf man. Even so, that a few have succeeded against all odds is much to their credit and demonstrates what higher education has done for the deaf.

In noting the number, moreover, we must consider the small proportion of the deaf to the population.

Only a small proportion of our graduates enter college and of the total number of those who graduate from college, compared with those who graduate from our schools, the percentage is very small indeed. Our chief concern, then, is with the graduates of our schools and it is with them in mind that we should answer the question.

Below is presented a list of "Ports of Entry" to one of which the graduate of one of our schools for the deaf may set out after securing the diploma attesting to the fact that he "has completed with honor" the course laid out during the ten or twelve years he has been under our care. Neither does this chart exhaust the list, but it will do.

Ports of Entry for the Graduates of a School for the Deaf

1. Literary	Editors and Publishers.
2. Artistic	Artists. Illustrators. Engravers and Etchers. Photographers.
3. Skilled Labor	Printers. Carpenters. Mechanics. Shoemakers. Painters. Electricians. Blacksmiths. Harnessmakers. Bakers. Barbers. Factory Employees. Physical Directors.

4. Unskilled Labor.. { Farmers. Helpers. Teamsters. Factory Employees. Supervisors.

5. Mercantile..... { Salesmen. Peddlers.

A casual glance through this list reveals the fact that by far the larger proportion of the deaf are engaged in some work with the hands. There are a few editors, a few artists, engravers, and photographers, and a few salesmen. But the great majority are among those under skilled and unskilled laborers.

What, then, should be our aim in teaching the deaf? The answer is, unquestionably, "Prepare them to live in a hearing world and teach them to work." But this is altogether too indefinite and the answer needs amplification.

To be specific and definite it will be convenient to consider our aim under four heads:

I. Literary.
II. Moral.
III. Industrial.
IV. Political.

I. Literary. A hearing man may get along quite well without any literary education, but if the deaf man is to take any part in the life around him, it is absolutely essential that he have the ability to read and write. Lacking it he is practically without the pale of society. It is this education alone that will restore him to it. And whatever his hands find to do, his chances of success are increased a hundred-fold if he have a good foundation in a literary education. This does not mean that he must possess all the accomplishments of the high-school graduate of a hearing

school and it need not be our aim to produce finished scholars. But we should aim to ground him in those fundamentals which by common consent are the basis of intelligence. It need not be our aim to rival other schools in the number of graduates we send to college, lest we be tempted to neglect the boy and girl who must take up the burden of life as soon as he or she leaves us.

Incidentally I think the standard required for admission to Gallaudet College is a good one for any school to measure up to, but we must remember that while one in ten may go to college and graduate there, we owe it to the other nine to prepare them for the harder battle they must fight. Our primary aim is not to produce college students but to fit the average boy and girl for life. The more we can encourage to go to college the better for them.

In order to give these boys and girls of ours a good literary foundation, then, we should aim to give them the best equipment possible in these fundamentals:

First, speech and speech-reading, if we can. There is no question that if one is to live in a hearing and speaking world the ability to speak and read the lips is of great advantage both in one's social and industrial life. The boy or girl with speech and the ability to read the lips is more apt to get the employer's attention than the one without. Therefore give them speech if it is possible to do so.

Second, English. There is some difference of opinion as to whether English is the all in all of teaching the deaf, some contending that it should be the sole aim of their education. For my own part I do not think so. I do not think that mental culture, useful knowledge, morals, and the training of the reason should be neglected in order that a doubtful command

of idiom may be secured. I would rather give the pupil all these things, even if his English is a little lame, than to send him out with an empty head, without poise and independence.

Lessons in history and geography may be used as auxiliaries and mediums of language teaching but not necessarily made subordinate to it. To be sure, with a command of language the acquisition of all these studies will be comparatively easy but they should not wait upon it.

As a very important means in acquiring English our aim should be to lead pupils to an appreciation of good literature by means of the story book, the study of literature, and the cultivation of the reading habit. This must necessarily be the foundation of all his present and future improvement in English and in getting all his knowledge.

English will necessarily be his chief means of communication between himself and the hearing world around him. He will also find that in reading he has a retreat from, as well as a defense against, the loneliness that his condition at times naturally imposes.

Secondary importance may be attached to grammar as a means to this end, and we need not aim to make the pupil a master of grammatical rules and syntax. Nobody ever became a good writer by the study of grammar. Grammar has its uses and mental discipline is one of them. I used to be very enthusiastic about the teaching of grammar but after twenty-eight years' experience I am not so sure of it and I would rather take my chances as to results by teaching less grammar and more simple English. For the last few years of the course grammar may well be given some attention, but we should use the synthetic rather than the analytical method of teaching it.

Third, arithmetic. We do not expect any of our pupils to become teachers of mathematics, lightning calculators, or experts in statistics. They must, however, buy and sell, measure and calculate, handle money, and do banking. To do this properly they should have a practical course in arithmetic and business methods. How many times a rabbit leaps while a hound following it is making $13\frac{1}{2}$ leaps, and how soon the hound will catch it, may be interesting pieces of information, but the time spent in acquiring it might better be spent in figuring out how many rolls of paper it would take to replace the dingy paper in the dining-room and what it is going to cost. In teaching arithmetic we should keep in mind the practical and utilitarian.

Fourth, general knowledge. To be a good citizen one should know something of his country's history; to understand the world he is in, to appreciate and enjoy his newspaper, he must know something of geography; to know himself and to keep well, he should know something of physiology and hygiene; and to understand the life and things around him, he should know something of nature. It should be one of our aims then to instruct him in these branches.

II. Under the second general heading, Moral instruction, we must assume a greater degree of responsibility than comes to the public-school teacher. Since the children are with us for nine months in the year it devolves upon us to teach not only morals but manners, and if we neglect this obligation we are delinquent in the performance of a plain duty. The aim in moral instruction must be general and in no wise sectarian. It is enough that we instil a knowledge of right and wrong, of truth, justice, and honor; teach the duty one owes to society and to others; self-reli-

ance and respect for the rights of others. Following this comes the duty of teaching manners as part of the essential qualities of cultured manhood and womanhood.

III. I come now to the third head, Industrial training. Looking again at the list, notice the occupations our graduates follow and see how many of these are taught at the school. There has been more or less criticism of the industrial departments of our schools because they do not give more trade teaching and one of the stock complaints is that the pupils seldom follow the trade learned at school. I have no sympathy with either of these complaints. They are based upon an entirely wrong conception of the purpose and aim of our industrial schools.

It is not, and need not be, our aim to teach the mastery of any trade. No school in the country has, nor could have, the equipment and opportunity to teach it. It requires not only tools and machinery, but contact with men and conditions, and an amount of time which the school can not possibly supply. It is our aim, however, to teach boys and girls to work, to show them how to handle tools, to give them habits of industry, and lay the foundation, by instruction in the fundamental principles, of future trade learning. We do this by instruction in manual training, which should begin early, and by shop work, and it has been demonstrated beyond question that thus taught the boy who goes out from us takes up a trade and is able to master it in a much shorter time than he could possibly do otherwise. Moreover we have not the time to teach a trade, even if we had the equipment.

In this connection I want to call attention to the remarkable success the deaf are meeting at Akron, Ohio, in the Goodyear Rubber Works. Nearly two

hundred deaf men are employed therein. I recently talked with a young man just returned from there, and he told me that the partiality shown the deaf in the selection of workmen was due to the fact that they could pick up the skill necessary in manipulating the rubber tires, while in the process of finishing, in a much briefer time than any of the applicants among hearing men. He attributed this to the fact that the deaf used their fingers in spelling which gave them strength and flexibility. I think, however, that the real explanation is that these boys of ours were trained to use their hands.

If we have given the boy a good foundation in English and taught him how to use his hands and eyes, he will have little difficulty in taking up a trade.

Since so many of our graduates become farmers, and since they should be encouraged in this direction as much as possible because farming is by far the best occupation for the deaf, I think it should be our aim to give them some instruction in this branch of industrial training as far as we can. This does not mean necessarily that we should send them out into the field, though practical work is desirable where feasible. We can give them instruction in the principles of plant life and in the essentials of agriculture from one of the many text-books now on the market. This is what we are doing in Iowa.

Next we come to the physical part of the pupil's education. We do not desire to produce great athletes, wrestlers, or acrobats, though incidentally we do produce a good ball-player once in a while. The main thing we aim to do is to conserve the pupils' physical well-being. We should in addition not lose sight of ways and means to instil the very desirable and manly quality of sportsmanlike conduct and

should aim to teach boys fairness in contest, to be good losers, and to exercise self-restraint in competition. We can do this best when we have a well-equipped gymnasium, but outdoor sports will supply the opportunity in a great measure.

IV. Lastly, we come to the political phase of the pupils' education. Not that we have in mind making politicians of them, but if they are to vote and take their places among the shapers of our country's destiny, should we not aim to qualify them by teaching them about their country's government? Should we not instil patriotism by making them understand what the flag of our country stands for?

It is not so much that we should aim at quantity as that we should aim at quality. We cannot give the pupils, in the brief period of their school life with us, that comprehensive education embodied in the curriculum of the public high school. But if we ever keep in mind that our charge is a boy with a handicap, destined to live in a hearing world and to work with his hands, then ask ourselves what he needs to prepare him for this, we can not go very far wrong in our answer.

In making no specific mention of the girls' share in this question, I have taken it for granted that the general principles apply to them as well as the boys. Their training in domestic science and the care of the home form a part of the great industrial problem in education.

In brief, then, we are to prepare our pupils for life in a hearing world, equipped to work with their hands. To do this we should give them speech if possible; we should give them a working command of English; we should teach them to rely upon reading and literature for self culture; we should teach them the story

of their country; we should instruct them how to take care of their bodies and keep well; we should instil the principles of truth and virtue and of self-reliance; we should give them a foundation in industrial training; we should teach them that they owe a duty to themselves, to society, and to their God.

This should be our aim.

J. SCHUYLER LONG,
Principal of the Iowa School,
Council Bluffs, Iowa.

THE INDIVIDUALITY OF SCHOOLS FOR THE DEAF[1]

V. THE INSTITUTION FOR IMPROVED INSTRUCTION, NEW YORK

To the members at large of our profession the name *Harris Taylor* stands for individuality. One expects to find in a school directed and permeated by Dr. Taylor's delightful personality many original features. This expectation is not disappointed. In fact, after a visit of a week at Lexington Avenue I felt like sending to the *Annals*, the *Deaf-Mutes' Journal*, and every other publication representing work with the deaf the following notice:

Found: a school in which the frequent presence of parents and other doting relatives of the pupils is not considered a nuisance or a hindrance.

At Lexington Avenue the schoolrooms are always open to friends of the pupils. Dr. Taylor claims that this practice prevents a teacher from acquiring the habit (all too common among us) of thinking of children *in groups*. When Mrs. A. amply and placidly overflows the visitor's chair, *her* Rosa finds a permanent place as an entity in the teacher's consciousness; henceforth that little girl will be to the teacher unlike any other Rosa or Edith or Mary or Bertha in the whole school. The child, too, gains in self-respect as well as in self-importance. The two qualities are not so far apart, after all, psychologically considered.

Trustees of the school also drop into the classrooms frequently. To Lexington Avenue teachers a "director" is not a seldom-seen-off-the-platform person,

[1] Continued from the *Annals* for May, 1917, page 256.

whose possible disapproval is a fearsome thing to contemplate forebodingly, but a friendly man who is genuinely interested in the way in which the deaf youngsters learn arithmetic and history and geography. These trustees even know that the acquirement of a verbal language is for the deaf one of earth's most difficult tasks. Dr. Taylor feels that it is good, as well as unique, to have a course of study judged by successful, hard-headed business men. So long as a great scholar and teacher like Rev. Dr. H. Pereira Mendes is connected with the Board, one may be sure that the spiritual and moral elements will enter into the chosen curriculum.

In the past the saddest thing about any kind of institution life for children, during a period of years, has been the weakening and loosening of home and family ties. The evil effects of such weakening and loosening, even when the homes are low-class, may be numerous and ramifying. Dr. Taylor allows the children to spend Saturday and Sunday at home. Moreover, upon proper certificate from parents, each child may leave the institution daily between the hours of 4.20 and 5.55 p.m. A desk clerk in the hall near the front door keeps strict record of each exit and entry by means of slips, so that the school knows with whom the child is and by whose home permission he has left the building.

Dr. Taylor says that contagious diseases have not resulted from this freedom of home intercourse more often than in hearing day-schools. Of course New York city is exceptional in its wonderful Board of Health arrangements, with its maps of territory where contagious disease exists at any given time. The contrast between the rosy, chubby children playing in New York's slum streets and the pale, anaemic, under-

nourished children in the country is so great that an observer feels like asking: "Wherefore fresh-air funds? Why not a city-air fund to fatten up the children of the rural districts and to put some color into their faces?"

Dr. Taylor says that the chief danger of this free intercourse with homes is too much candy; but, as that is not greater than in the case of hearing public-school infants, the damage is relatively small compared with the benefits gained all around.

The interior of the old building on Lexington Avenue seems rather gloomy, when one first enters it. But the home-like atmosphere of individual freedom soon counteracts first impressions. Under Dr. Harris Taylor's administration the word "discipline" loses its usual disagreeable connotations and becomes a synonym for sanity. Today self-government is, largely, an accomplished fact among the older pupils. At study hour they sit unwatched and unattended, except for an older pupil whose more advanced knowledge enables him to answer questions concerning lesson difficulties. There is a weekly dancing class chaperoned by Miss Pybas (a woman whose calm good sense and kindly intuition would secure willing coöperation in the most turbulent place) and other teachers of pleasing personality. Nobody is ever allowed to use this dancing class as a means of punishment, through deprivation of attendance because of bad conduct outside either in class or play-room. Pleasure granted is pleasure unalloyed at the Institution for the Improved Instruction of Deaf-Mutes. Surely, there could be no greater "improvement" than abolishing the old habit of making every social gathering a threat in the hands of an impatient supervisor or a dull teacher. Discipline does not mean, in Dr. Taylor's lexicon, pressure of external

authority. Instead, the aim sought is that true discipline which means voluntary inhibition of undesirable impulses, acts, words. I am permitted to quote (using italics of my own) from a talk Dr. Taylor gave at one of the teachers' meetings a few years ago:

> After many years experience my conclusions are:
>
> 1. The milder the punishment, the less need for punishment.
>
> 2. In cases of troubles with my pupils the fault often lay with me and not wholly with the pupils.
>
> The relatively excellent conduct of our pupils is not so much due to the fear of punishment as to *the spirit which makes for right living. This spirit must and shall be encouraged.* The time has not yet come when we can trust our pupils wholly to govern themselves, but every step we can take in that direction will diminish friction while the pupils are under our control *and prepare them for fuller lives after they go out into the world.*

Dr. Taylor then speaks of interest as a factor in securing good conduct and of the personality of the teacher. He makes a distinction between "determination" and "pig-headedness," the former accompanying a conviction of justice on the teacher's part, the latter an unwillingness, through pride or vanity, to concede error. He adds:

> You and I may not know whether we are determined or pig-headed, but rest assured of one thing: in due time our pupils will classify us with unerring certainty.
>
> I ask no teacher to transform her class into a debating society; there are times when pupils should obey automatically, without asking why; but always remember that matters of principle cannot be treated with military harshness. Often the pupil, from his point of view, is doing what is right, when from the teacher's point of view his conduct is altogether wrong.

Nothing could show more plainly the breadth of vision of the head of the Lexington Avenue school than the following extract from the same talk:

> Order may be heaven's first law, but it is not the law that has emanated from that source; neither is it the most important. We are not striving for order for order's sake but to facilitate the great work of developing the hands, the minds, and the souls of our own pupils. I have seen children developed into ox-like docility only to remain in ox-like stolidity. Suppose, after exhausting your entire energies, you have obtained perfect order. What have you accomplished *that will enable a child to read or write or think or keep the commandments?* The best order is that which is obtained with the least friction, that which comes largely through interest in the work, sympathy with the teacher, and the desire to do right.

Apparently the school lives up to the letter and the spirit of this noble, forever true, advice.

Speech and lip-reading in the Lexington Avenue school are excellent. During my visit I was given an opportunity to observe an interesting experiment being carried on with a class of two years' standing under the direction of Miss Adelaide Pybas. This method, especially designed to promote the early formation of the speech habit along natural lines, originated with Miss Pybas when she was head-teacher in the Pennsylvania Oral school at Scranton, where it was approved and encouraged by Miss Kate H. Fish, the able Principal of that School. Some of its good results I witnessed at Scranton as recently as the fall of 1916 under Miss Van Dusen, now head-teacher there. Considered by classes, and not by individual children with naturally superior command of their vocal organs, excellent speaking voices have resulted from Miss Pybas's method.

Roughly sketched, the idea is: hearing babies make all manner of sounds and sound combinations (from "ba-ba" to squealing and growling) before they talk. They are not usually given practice in writing until the speech habit is well established. Space here forbids expansion of Miss Pybas's reasoning on the psychology of habit as applied to young deaf children. Suffice to say it follows William James in general, supplemented by the observation of the best teachers of young deaf children. Until the speech habit is *fixed* Miss Pybas uses no writing with the babies. Rhythm and musical vibrations are used with marked success. Voices learn to run scales of tones rapidly. Babbling of combinations seems to give genuine pleasure to the children. Vocabularies increase more rapidly than by the older method, it is claimed.

In this connection, I was greatly impressed by the ability of the young children taught along these lines at the Lexington Avenue school to make connotations rapidly. For instance, wholly unprearranged by the teacher, an orange suggested to one child "Florida," to another very quickly "Miss Buell," who was then in Florida, to another "letter." Miss Buell had recently written a letter to some one from Florida. Next came talk about "flowers" in Florida; then "sick," referring to Miss Buell's health; next "come home," referring to her return; from this point an animated discussion as to "trains," "station," and a very complete visualization of Miss Buell's probable joy at seeing them all again when she entered the building where they were. Now this running fire of wholly free comment among themselves seemed a splendid base for the "natural conversation habit" along verbal lines.

It was more. It was training in what makes any

mind keen—the ability to follow quickly a train of suggestion from verbal stimuli. Some of these children (third year) talked in sentences, others in single words. Nobody hindered them, nobody helped them much. They were not in order, according to the stupid old pedagogical ideal. If they had spoken in turn, while hands were sedately folded, there could have been no vivacity—the charm of all verbal conversation. Some stood; some swung on one heel; one sprawled across his desk while he was talking, in exactly the attitude I had often seen one of America's greatest philosophers assume while expanding his views; two or three sometimes tried to talk at once; one little girl shrugged her shoulders contemptuously at a foolish suggestion made by a friend. But—and this is the point of importance—every child in the class was *alive* and *interested*. Every child was making verbal connotations and thus widening his universe. Early Montessori training must be given some credit for this ease and self-forgetfulness of the children. The adaptation of Montessori methods to the needs of American deaf children is made a special study at Lexington Avenue. How can any child forget himself in his subject, when he knows he will receive a bad mark if he fails to remember to hold himself in a prescribed bodily position? The very *tensity* in which he must hold his muscles checks the flow of blood to the brain where it is needed at the minute.

For more than thirty years I have advocated written language as the medium, above all others, to promote culture—mental, moral, spiritual. I still stand by that doctrine. But what I have seen of the results attained by Miss Pybas, Mrs. Hurd, and others along the lines just described has modified my opinion as to the time of beginning written language with a deaf child who is to be taught orally.

Miss Pybas, Mrs. Driscoll, and others of the Lexington Avenue school are now using musical vibrations with great success. Mrs. Driscoll has invented piano exercises of much value and originality, thus proving that a wonderful head for mathematics does not necessarily crowd out artistic power.

Another department of original work peculiar to the Institution for Improved Instruction is Miss Buell's method of teaching language through pictures. I have, through the courtesy of Miss Buell, received an outline of this work which is well worth preserving here. Its careful study will help every earnest and enthusiastic teacher of language immensely, because it is founded on the basic principles of language acquirement, language comprehension, and language use, and because it employs the main faculty concerned in all language development, imagination.

WORD PICTURES

By E. M. Buell

(Always given in present and present-progressive tenses)

First step

1. Imaging from pictures.
2. Imaging a picture from teacher's description.
3. Imaging a picture from children's description.

Second step

Imaging from:

1. Words
2. Phrases
3. Sentences

} concerning things within the experience of the children.

Third step

Imaging from:

1. Words
2. Phrases
3. Sentences

} concerning things not within the experience of the children.

Fourth step

Condensation of stories imaging action of stories.

Fifth step

Outline Work:

a. Making outlines for stories and pictures.
b. Writing compositions and stories from outlines.

Observation of Demonstration of this Wor

First step

Children were given books and told to look at a picture very carefully: "Now close your eyes and try to see the same picture that is in the book."

The children were then asked to tell what they saw. It is necessary at first, perhaps, to draw the picture as children tell what they see.

Next the teacher described a picture and the children found it, from her description, in their books.

After that a child described a picture and the class found it.

Second step

"Shut your eyes and think of what you see when you think of a party." "Think of the park in winter."

Third step

Miss Buell read the story: "The Frog, the Mouse, and the Hawk."

"Now while I am reading try to think about the language and see in your mind the pictures of the story."

Class wrote all the story.

Fourth step

Miss Buell then asked them to give her the most important points and she wrote them on the wall slate.

Important Points

I. A mouse met a frog and took him to his home in the pond.

II. He tied the mouse's foot to his.

III. The mouse could not swim and was drowned.

IV. A hawk took the frog to his home and he was bound to the mouse.

V. The hawk ate the frog and the mouse was the baby hawk's supper.

The class may be taught after you rub off the numbers that this is really the story written in a short way.

Fifth step

Outline (This was made from the "Important Points"):

I. What a mouse met.

II. Where the frog took him.

III. What he tied to the mouse's foot.

IV. What happened to the mouse and where the hawk took him.

V. What the hawk had for supper.

That outline, carefully studied, will reveal every element that goes to make an intelligent and rapid reader. Nothing more than that need be said of its potential value to deaf children, whose mental habits ought to be led early in the direction of reading, if life is to compensate them at all fairly for the loss of the ear's help.

The story here given is more tragic than the usual run of stories used. Love of, and kindness to, animals is urged constantly at the Lexington Avenue school. The children have pets of their own—a parrot, a canary, and cats. Several were in tears one day during my visit because the canary had escaped to the roof of a neighboring sky-scraper and they feared he might not return safely to his cage. Windows were left open and little heads were craned upward from

the play-ground for hours, hoping and waiting and watching. Seed was scattered on window-sills by some of the children. The poor little fellow through whose carelessness the cage-door was left open found himself ostracized by many of his playmates.

Along the lines of Miss Buell's picture work is a class in geography taught by Miss Strickland which is remarkably interesting. In some schools this would be termed an atypical or a defective class. At Lexington Avenue they use the less harsh word "special" to describe a class of backward boys and girls.

The children in studying about a country consult time-tables, routes, consider necessities for the journey, the kind of clothing that they will need there, the form of money to be used, etc. On one occasion two children appeared in the class-room with a suit-case packed for a visit to a European country. They were not rudely disillusioned by Miss Strickland but they were persuaded to defer the trip until they had saved more money to carry it out in better style. On my visit to the classroom the following outline was placed on the board—blanks to be filled in by the children:

Holland

Holland is a small country in ———. It is ——— miles east from New York. It will take about ——— days to sail from ——— to Holland. The capital of Holland is ———. Wilhelmina is the ——— of Holland. Holland is sometimes called the ———. "Nether" means ———. The people are called "———." The houses in the city are somewhat like ———. The country houses are ———. There are many canals in ———. These canals are ——— in winter, and everybody ——— on them. There are many wind-mills in ———. The ——— pushes the sails on the wheel and this makes the machine in the ——— move very fast. They grind ——— for food. There are many cows

in Holland. People make ——— and ——— from cream and milk. They sell these things to a country near Holland, called ———. The capital of England is ———. It is the ——— ——— in the world.

——— people are very clean. They wash their ——— inside and outside every week. Their shoes are made of ———. At Christmas time children put their ——— in front of the fireplace. They put ——— in their shoes for the ——— to eat. Everybody in Holland knows how to ———.

After filling out the blanks the pupils were told to draw a picture which would describe Holland. That they had caught the spirit of Dutch life was quite evident from the pictures drawn.

In a history lesson the pupils were requested to draw a picture of a stockade such as protected the houses and forts of the early settlers in the United States. The individuality in their conception was marked:

No. 1 showed a log house with rounded roof, two sentries beside it, another man with a gun. Another was chopping down a large tree while an older man marked a tree for destruction.

No. 2 showed a house of entirely different construction with an old fashioned latch on the door. Men were chopping down trees. In the distance was a tent with an Indian chief seated in front of it fixing his arrows.

No. 3 showed a stockade like a picket fence. Inside the enclosure were round, long objects marked "Logs." A man was sawing one of the logs. The roof had four lines marked "Logs. Cabin half finished." This house had a large chimney. The gate to the stockade was labeled "A man chops down a tree."

No. 4 showed the usual axe-cutting, also several women in queer bonnets, apparently bringing in wood.

No. 5 was a dense forest with only one human figure in sight, the chopper. He had left his door locked and barred.

No. 6 had paths with big stumps on either side and a square block house.

No. 7 had a "fort" with bristling guns extending from it, a cabin, and "settlers" of both sexes in colonial dress.

Analyze this batch of papers a bit. Here were seven confessedly dull children who showed through their drawings that they had visualized to a remarkable degree what was given to them in language. Their own language was, at its worst, very fairly descriptive of their drawings. Each had thought independently and, what is of far greater importance, had been allowed to express himself independently. Never, in all my years of teaching, have I been more deeply impressed than by the results attained by Miss Strickland with this class. Surely, Miss Buell's picture method should be used in every school for the deaf.

When it comes to trying to describe arithmetic as taught by Mrs. Driscoll at Lexington Avenue one cannot make the wonder of it clear to those who have never seen her teach. As a director of the school said: "It is simply *Mrs. Driscoll*—that is the secret." A tribute to personality, well-deserved.

The entire corps of teachers in this school does good work.

But another element tells—the minds of the children—who nearly all belong to the Jewish race. To care for, to seek eagerly for, the things of the soul and of the intellect is the heritage of the great, generous Semitic race—a heritage from whose spiritual and intellectual treasures it has enriched, and continues to enrich, the inward life of every civilized nation on the

globe. All deaf children want to learn. These Jewish deaf pupils seem doubly eager. Lucky indeed are they to be directed by a broad-minded man whose sanity and humor (the two qualities are really inseparable) enable him to know what should be taught and what should be discarded. In an address read by Dr. Taylor at the commencement exercises of Cumberland University, Tennessee, he says:

> You cannot afford to waste your strength on the trivial or unimportant. If you are training a boy to become a hunter, teach him to kill big game; don't tell him how to catch grasshoppers. What shall you teach? Teach that which is of most worth.

Not to magnify the insignificant, including that most insignificant of all things, one's own dignity; not to be swamped by details; not to forget that the souls and minds of our children are immortal; not to starve their little hearts by treating them as parts of a machine. These are commands which seem especially to mark the individuality of the School for the Deaf at Lexington Avenue. They are not new commands by any means. But—at Lexington Avenue they are habitually obeyed.

SARAH HARVEY PORTER,
Normal Instructor in Gallaudet College,
Washington, D. C.

TEACHING THE ARTICLE AND RELATED THINGS

One of the axioms of deaf-mute instruction should be, "Never teach a child anything that must be untaught," and closely related to it is this one, "Never give a pupil a form of construction that is different from what speaking people use at least sometimes under the same circumstances."

I know we are plunged into difficulties the moment we begin to consider this point. On one side is the palpitating eagerness of the pupil to express in language from the thought life that which is beyond his power to express properly. On the other side is the teacher's fear of "confusion worse confounded" if we give the pupils forms of construction, simply to help them express properly what they wish to say, before there has been much pains-taking drill on said forms of expression in schoolroom work. We simply have to make our choice as to which evil we think will work the least disaster in the end.

Shall the pupil be refused the vivifying effect of language, when he is eager to express his thought and his mind is all aglow with the common human desire to communicate? Surely such refusal oft repeated will have a tendency to dwarf the intellectual growth. Shall the words given, or permitted to be used, to express the glowing thought, be incomplete or unnatural, therefore fixing in the mind, made unusually plastic and receptive by the desire to express, forms of expression that must thereafter appear in the vocabulary of the pupil as deaf-mutisms? Or shall we in a very guarded way strive to give them perfectly correct and

natural forms of expression, trusting to the natural growth of language in the future, by frequent use of pencil and paper in conversation with relatives and friends, to be a large factor in correcting their mistakes?

The writer has seen some surprising results along this line on the part of pupils whose composition was very defective while in school, sometimes from one cause, sometimes from another. No doubt the wisest teacher will find a way to combine what is best in both methods of procedure. Certainly any conscientious teacher of the deaf will always be hammering away in the schoolroom on the idea that it is perfectly dreadful to make mistakes, and that no pupil has any right to expect he will be permitted to bring up letters, stories, or other exercises that abound in mistakes in English for the teacher to straighten out for his complacent copying. The writer has found that rigid adherence to the rule that every sentence containing error as to construction must be re-written from memory will do much to cultivate the habit of careful writing.

We all know there are two ways in which language is acquired. First, in the natural way of use in connection with the needs or circumstances that call for its use. Second, by prepared drills under the direction of a skillful teacher, who aims to help his pupils see some reason for writing in one way rather than another, and to go carefully from step to step so that new forms of expression are dove-tailed into what has gone before.

So it behooves a teacher of the deaf to look carefully into all her work to discover what things can be taught most effectively by frequent use, without much attempt to explain the wherefore of the use, and what can be taught best by guarded, painstaking drills, where the

chief aim is to give the pupil understanding of some principle of construction.

The things that can be easily taught simply by use will be taught the best, other things being equal, provided we take time to use them often enough—and there is the rub. But all these things that can be taught best by simple use must be taught exactly right *from the very start*, and not introduced after the pupil has been allowed to use some other form of expression to convey the same idea, oft such a form of expression as a hearing person is never known to use under the same circumstances. There must be great care not to teach what must afterwards be untaught.

There is no more common mistake made by the inexperienced teacher of the deaf than to think that because a sentence is grammatically correct it is a correct sentence for the deaf pupil to use. Every word should stand for an exact situation clearly defined in the teacher's mind, "culled and chosen," so to speak, from other words, and used with a very definite purpose in view. Such careful choice on the part of the teacher is more necessary for the things that are to be taught by use than for those that are to be taught by more specific drills. Otherwise the work will be desultory, haphazard, and confusing. We must not have too many things on hand to be taught mainly by use.

The verb *to be*, the articles, and the expressions "There is," "There are," "There was," "There were," are among the things that can be taught best only by frequent use and should be introduced very early in the pupil's school life. Perhaps the article has been the subject matter of more defective teaching in deaf-mute work than anything else. Its proper use has wrapped up within it great potentialities of understanding of things that will come later. No pupil will

ever have any trouble in acquiring the use of relative pronouns and qualifying phrases who has *from the beginning* been taught the article as it should be taught.

This simple, innocent-looking little part of speech is governed by so many things in its use, so often by thought or circumstances that are implied rather than apparent, that it stands out as one of the things that must be taught exactly right from the very start and never used except in harmony with some *principle* involved in its use. John receives *a* box from home and is right to tell his teacher so. But when he writes to thank his mother for the box he should be required to speak of it as "*the* box," because it is a particular box of which his mother had previous knowledge. That would be the natural way for a hearing boy to write to his mother of a box received: "I received the box all right." To allow John to say, "I got a box from home; I got such and such things," in letter-writing home simply because he has been taught "got," is to foster deaf-mutisms, for a hearing boy would speak of *the* box and of how he liked *the* things in it. The enumeration is for those who know not what he got, not for those who know.

John's information may be so limited that he can only wonder that his box, when written about in a news item, is "a box," but when referred to later, or written about to his mother, is "*the* box." But if he gain the primordial idea about the article that it is not to be used carelessly he has gained much.

A teacher who allows his pupils to write "An eraser is under *the* chair" when there is more than one chair in the room has no right to be surprised, when it comes to story-writing or the description of a picture, if the pupil uses the article just any way. Equally incorrect is the sentence, "Mary went to the store and

bought something," unless it is true that there is only one store in the place.

When did you ever hear a speaking child make such statements as the following: "A woman has a beautiful picture and it has no frame," "A farmer has five cows and they have crooked horns?"[1] A hearing child would give the names of the woman who had the picture and of the farmer who had the cows, or else he would speak of having seen them as belonging to the woman and the farmer.

No hearing child, looking upon the picture of a boy with a watch in his pocket, would say "A boy has a pocket. A watch is in it." He would say, "This boy has a pocket," or "The boy in this picture has a pocket" with added information about the watch unless it was first mentioned as being in the boy's pocket.

O dear fellow teachers, do we not owe it to our pupils to study often, to study conscientiously, to study ardently, to find a way to teach our pupils, as far as possible, to speak of things as hearing children do?

It is right enough to use an imaginary sentence to illustrate a grammatical truth in teaching the hearing. They understand the sentence to be imaginary. Not so the deaf child. If we would lead him to make proper connection between language and thought or circumstances, we must long use language in his instruction only with the most rigid adherence to facts. Calling upon a class of deaf pupils of several years' instruction for sentences illustrating the use of the verb *to be*, great was the disgust of the teacher to receive from one pupil such a statement as the following: "A bird is sick." Any hearing child seeing it would at once inquire, "*What* bird is sick?" Another question

[1] These sentences are taken from a little text-book written for teachers of the deaf.

often to be pondered thoughtfully is "*What* can I teach *as I go along*, without taking time for thorough drill?" It is all right to teach, "I bought some ink." But why not at the very start teach, "I bought a bottle of ink." That is what we usually do. It will forestall your ever having to slash out the sentence, "I bought an ink-bottle," and then to have laboriously to try to explain the difference between a bottle of ink and an ink-bottle. The pupil will deal with bottles of ink, as a rule, many, many times before he has any personal contact with empty ink-bottles. An empty ink-bottle will not figure very much in his life any way. Important things first.

In a lesson-course book the sentence occurred, "Miss ——— put her pen into an ink-bottle." The writer let it pass without trying to explain the difference between putting a pen into some ink and into an ink-bottle. A little later, while writing original sentences, a pupil brought up the sentence that he had bought an ink-bottle. In the lesson course the sentences the person writing the manual had in mind to use were sentences requiring the use of "an," hence "an ink-bottle" instead of "some ink." It was the kind of mistake that we as teachers of the deaf most frequently make, and this is the way that mistakes are made that lead to deaf-mutisms. We evidently have to look out for a good deal more than grammatical construction, or a supposable situation, in teaching language to the deaf. Paramount must always be consideration as to how the pupil will apply that instruction in every-day life.

The writer has found that, even with very slow pupils, such phrases as "a box of, a pail of, a glass of, a piece of, a stick of, a bottle of" are soon grasped as to their meaning, if we use much action in instruction,

after the first struggle to master the phrase, and later the understanding is of great value in other instruction.

There is a difference between a freshly opened box of crayons and the nearly empty crayon-box in daily use. Why not teach the difference at the start? So also of many other things.

The writer having noticed that pupils of several years' instruction would studiously avoid the use of "There is," "There was," etc., and having been assured by a fine deaf-mute teacher that the phrase was a very difficult one for the deaf to attach any meaning to, determined to see what could be done when it was again her lot to teach those near the beginning line. The success was gratifying even with very slow pupils. The main thing was to seize upon every possible occasion simply to use the phrase thus: "There is a fly upon the wall;" "There is a pencil under Mary's desk;" "There will be no school to-morrow;" "I got a box from home." "There were candy, cake, apples, etc., in it," and so on. The phrase was also used over and over in little number-work action stories until the pupils just naturally used it as we do. It is easier taught than some other things if the teacher will just take the time to use it often enough in the right way. A good way to teach it is to exhibit pictures and ask simply for sentences beginning "There is" and "There are;" as, "There is a large house in that picture;" "There are two boys in that picture," etc., etc.

Pictures also lend themselves beautifully to the teaching of the article. We should not have a pupil write, "A boy in that picture is feeding a rabbit" unless there is more than one boy in the picture. If there is only one we surely want him to use "the," as designating the particular boy in the picture. But if we ask for what is seen in the picture, we wish to receive, "I

see a boy in that picture feeding a rabbit," because the mental attention now is to be focused upon what is seen as a whole rather than upon the action of the boy.

Oh, many and fine are the distinctions in thought that make us use one article rather than another in daily life, and it is our herculean task to urge our pupils along to more and more comprehension of these distinctions. As we have said before, they will get a mental grasp of other important things in language construction that they would otherwise miss or have to receive later in some other way. Every least bit of advance makes for clearer thinking and more definite aim in their use of words. The writer once had a class in the intermediate grades for four years. She undertook to teach the articles and often felt really frantic at the slow progress made, at the amount of time consumed, at the sacrificing of other things pressing for attention, and at the almost endless discovery of variations, exceptions, and specifications when it came to the effort to teach the articles thoroughly. The results proved that the best work of her life was done with that class, if she may believe what the pupils themselves have said to her as well as other teachers into whose hands they passed. Doing nothing but exactly the right kind of work with the article from the beginning will make unnecessary such labored attention later.

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THE ABILITY OF DEAF AND HEARING CHILDREN TO FOLLOW PRINTED DIRECTIONS[1]

The ability to carry out directions is important in almost all psychological tests. It enters into every test that is preceded by instructions to the examinee. Failure to comprehend the directions leads to failure in the test. In this sense, therefore, all tests preceded by directions measure this ability. In addition to such indirect measurement, it is possible to measure directly the ability to carry out directions in general. Tests of the ability to follow directions or commands are found in some scales of intelligence, as in the Binet scale. Such directions are given orally. A test to follow printed directions has been devised by Woodworth and Wells.[2] This presupposes ability to read and to comprehend printed language. In this it differs from orally given directions, in as much as the latter depend merely upon the ability to understand spoken language, which may be reinforced by gesture. And, keeping in mind the condition of the deaf individual, it is obvious that following printed directions differs vastly from following directions that have been given to him by means of signs or gestures. Since the work reported in this article deals with the results of Woodworth and Wells' Directions Tests given to deaf and hearing individuals, it is important to keep the above facts in mind. The comparison of the

[1] Reprinted, by permission, from the *Pedagogical Seminary* for December, 1916, vol. xxiii, pp. 477–497.

[2] Woodworth, R. S., and Wells, F. L., "Association Tests." *The Psychological Review Monographs*, no. 57, December, 1911, p. 68 et seq.

abilities of the deaf and hearing groups on these tests is not really a comparison of the ability to carry out directions in general, but rather a comparison of the ability to understand the printed language of the tests. The results give us more insight into the language development of the two groups than into the ability to do what has been comprehended.

In this study the two Easy Directions Tests of Woodworth and Wells were used. We have designated them Test A and Test B and they are reproduced here in Figures 1 and 2, with the addition of the numbers from 1 to 20 in each case. This enumeration does not appear on the original test sheet, but has been added here because frequent reference will be made to particular directions.

Various groups of individuals were tested as follows: Test A, 187 hearing children in grade schools ranging in age from 9 to 16; 121 younger hearing children in grade schools ranging in age from 6 to 8; 23 unemployed adults tested at an employment bureau when seeking employment; 22 students of a business college; and 366 deaf children, pupils of a state school for the deaf, ranging in age from 9 to about 20: Test B, 190 hearing children from 9 to 16 years old; 124 younger hearing children from 6 to 8; 20 unemployed; 29 business college students, and 289 deaf pupils.[3]

The method of procedure differed somewhat in giving the tests to the different groups. With the deaf children the tests were given individually but no very accurate record of the time was taken, since it became obvious early in the work that the time ele-

[3] The writers wish here to acknowledge the assistance given them by Miss A. E. Beekman, graduate student in the department of psychology, in collecting the data for the hearing children, the unemployed, and the business-college students.

1 Cross out the smallest dot·

2 Put a comma between these two letters: G H

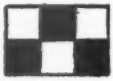
3 How many ears has a cat?

4 Make a line across this line:

5 Show by a cross which costs more· a hat or an orange.

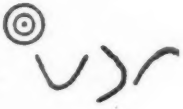
6 Write 8 at the thinnest part of this line:

7 Write any word of three letters.

8 Put a dot in one of the white squares: 

9 Cross out the word you know best: fish brol. matzig.

10 Leave this just as it is·

11 Mark the line that looks most like a hill· 

12 How many t's are there in twist?

13 Dot the line that has no dot over it:

14 Write o after the largest number: 3 86 12

15 Mark the name of a large city: London. painter

16 Make a letter Z out of this:

17 Join these two lines·

18 Write s in the middle square:

19 Write any number smaller than 10.

20 Put a question mark after this sentence

FIG. 1. DIRECTIONS TEST A

1 Cross out the *g* in *tiger*

2 Write 2 between the two dots · · ——

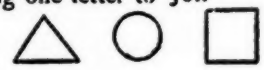
3 How many feet make a yard?

4 Write + over the longest word · **It rained yesterday.**

5 Put a dot below this line: ————————

6 Write the sum of these numbers: $\frac{3}{4}$

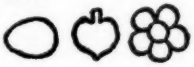
7 Make a boy's name by adding one letter to Joh

8 Make a cross in the circle: 

9 What comes next after D in the alphabet?

10 Write 7 in the largest square:

11 Cross out the blackest letter in TEXAS

12 Write *g* on the egg-shaped figure: 

13 Make two dots between these lines:

14 Put the sign = where it belongs: 3 + 2 5.

15 Write here.....the middle letter of *get.*

16 Put a nose on this face:

17 Add a cross and make these rows equal: XXX / XXXX

18 Put a dot in the circle, below the center:

19 Draw a line around the three dots: · · · · · · ·

20 Cross out the last word in this sentence.

FIG. 2. DIRECTIONS TEST B

ment would be of little significance. The pupil was allowed to work at each test for as long as he wished. This same procedure was followed with the younger group of hearing children except that they were given the tests in class. With all the other groups tested the tests were given individually and an accurate record of the time kept.

Time. The results of the time taken to perform the two tests are shown in Table 1. There is a very

TABLE I

Time, in number of seconds, for hearing children, unemployed, and business-college students on directions Tests A and B

		AGE								UNEMPLOYED	BUSINESS COLLEGE
		9	10	11	12	13	14	15	16		
Test A	Average....	168	178	177	137	127	123	133	123	309	84
	Shortest....	135	105	70	70	72	61	80	90	90	50
	Longest....	204	283	330	265	285	298	231	213	640	119
Test B	Average....	143	171	160	149	139	119	140	141	287	88
	Shortest....	100	110	87	78	64	72	72	90	105	58
	Longest....	177	360	384	315	315	247	197	230	620	183

slight and by no means regular decrease in time for the children from age 9 to 16. There is, however, a very marked decrease in time for the business-college students as contrasted with the children, and a very marked increase in time for the unemployed group. The difference between the business-college students and the unemployed is very noticeable. As we shall see later, this very slow performance of the unemployed is accompanied by a poor qualitative performance of the tests. If the deaf children had been timed on the tests, the average times would undoubtedly have been as long and very probably longer than the times for the unemployed.

Quality. By quality of performance is meant the number of directions correctly responded to. It is in regard to this factor that we have sought for a com-

TABLE II

Distribution of hearing individuals according to number of directions correctly answered. Test A

NUMBER OF DIRECTIONS CORRECT	AGE											UNEMPLOYED	BUSINESS COLLEGE
	6	7	8	9	10	11	12	13	14	15	16		
0	0	4	1										
1	7	11	1									1	
2	2	13	2									1	
3	3	9	2										
4		7	2										
5		2											
6		1											
7			1										
8	1	5	1									1	
9	1	3	4									2	
10		4	1										
11		2	2									1	
12		8	4									1	
13		4							1			4	
14		2	3			1						2	1
15		3	1	1		2			1			2	
16			1	1	1	4	1	4				1	
17		2	1	1	2	3	1	2		1		2	
18				2	10	14	7	8		1		3	5
19				3	9	12	21	7	9	9	3	1	9
20				2	3	5	11	9	8	5	4	1	7
Totals	14	80	27	10	25	41	41	30	17	16	7	23	22
25%ile	3	11	12	19–20	19	19	20	20	20	20	20	17	20
Median	1–2	4	9	18–19	18	18	19	19	19	19	20	14	19
75%ile	1	2	4	16–17	18	17	19	18	19	19	19	11	18

parison between the deaf and the hearing. Tables II and III show the results for Test A and Tables IV and V for Test B. In the body of these tables is shown the distribution of the individuals according to

the number of directions correctly answered. The total number of individuals for each age or group, along with the median, the 25 and 75 percentiles, is

TABLE III

Distribution of deaf children according to number of directions correctly answered. Test A

NUMBER OF DIRECTIONS CORRECT	AGE										ADULT
	9	10	11	12	13	14	15	16	17	18	
0	6	4	4	2	1	2			2	1	2
1	12	20	13	10	3	4	6	6	6		5
2	4	13	18	15	17	9	6	14	7	3	3
3	1		2	3	3	3	2	7	4	4	2
4		1		1	4	2	3	2	1	1	2
5			1	2				2	1	1	3
6					1		1	3	1	3	1
7						1	2	1	1		2
8	1			1	3	2	2	3	2	4	1
9					1		3	2	2		6
10						1	1	4		1	1
11							1		1	1	
12					1		1		1	1	3
13						2	1	1			2
14							1			1	1
15									1		1
16									1		
17					1		1	2			1
18									1		
19									1		1
20						1					1
Totals	24	38	38	34	35	27	31	47	33	21	38
25 %ile	2	2	2	2	4	7	9	8	8–9	8	12
Median	1	1	2	2	2	2	4	3	3	6	7
75 %ile	0	1	1	1	2	2	2	2	1–2	3	2

given at the bottom. An inspection of the medians for the deaf shows that in neither test does the median for any age rise above seven directions correctly answered. With the hearing children a median higher

than seven is attained by every group from age 8 upwards. The median performance of the deaf child at any age never reaches the median of the eight-year-

TABLE IV

Distribution of hearing individuals according to number of directions correctly answered. Test B

NUMBER OF DIRECTIONS CORRECT	AGE											UNEMPLOYED	BUSINESS COLLEGE
	6	7	8	9	10	11	12	13	14	15	16		
0	4	13	2									1	
1	1	9	2										
2	3	6	2										
3		5	3										
4		8											
5		4	1										
6	1	4	2									2	
7		5	4										
8	2	4	1										
9		5	5										
10		3	1										
11		3	2									1	
12		2	4									2	
13		2	1									1	
14		3	1	1		2	1		1			2	
15		2			1	1	1	1		1		2	
16		3	1			2	3	1	1	1		2	2
17				2	4	7	6	8	1	3			
18				3	7	7	13	6	4	3	2	2	6
19				3	4	16	8	10	5	4	5	3	9
20				1	9	6	9	6	6	4		2	12
Totals.....	11	81	32	10	25	41	41	32	18	16	7	20	29
25 %ile.....	6	9	11	19	20	19	19	19	20	20	19	19	20
Median.....	1	4	7–8	18	19	18	18	18–19	19	18–19	19	15	19
75 %ile.....	0	1	3	17	18	17	17	17	18	17	18	12	18

old hearing child. The seven-year-old hearing children have medians about equal to 14 to 16-year-old deaf children. The median for the unemployed group in both tests lies just below the median of the nine-

year-old hearing children. The distribution of the unemployed is the most scattered of any of the groups tested, ranging from one in Test A and 0 in Test B

TABLE V

Distribution of deaf children according to number of directions correctly answered. Test B

NUMBER OF DIRECTIONS CORRECT	AGE										ADULT
	9	10	11	12	13	14	15	16	17	18	
0	2	4	9	10	7	2	2	5	8		2
1	1	1	3	5	3	6	3	5	4		3
2	1	1	1	5	8	1	2	7	5	2	3
3	1		1	2	3	3	3	4	2	6	4
4		2		2	3	2	3	6	2	5	3
5			1		4			1	9		3
6						3	3	1	2	2	3
7							1	3	2	2	3
8						2	4	1	2	1	
9					1			3	1	2	1
10			1	2			1	1	2	1	4
11					1		2	2		1	1
12					1			1	1	1	2
13								3			
14											2
15					1			1			1
16									3		1
17						1				1	3
18						1	1		1	1	
19							1				1
20								1			
Totals	5	8	16	26	32	21	26	45	44	25	40
25 %ile	3	4	2	3	5	6	8	9	7	9	12
Median	1	0–1	0	1	2	3	5	4	5	4	6
75 %ile	0	0	0	0	1	1	2	2	1	3	3

to a perfect performance. The deaf children show a fairly constant increase in ability from age to age. In both tests the adult group is slightly superior to any of the preceding age groups. This is in marked contrast to the inferior performance of this group

as compared with the 18-year olds in other tests not involving language.[4]

The older hearing children, i.e., those aged 9 and above, show their ability to comprehend practically all of the directions. Most of the errors made by this group are due to inaccuracy rather than to lack of comprehension. The median for this group rises from 18 to 20 and the distribution shows no paper with less than 13 correct responses. The business college students do no better than the older hearing children. Their mistakes are also due to inaccuracy. These two groups can be directly contrasted with the younger hearing children and with the deaf children. The chief factor in the poorer performance of these two latter groups is the inability to understand much of the language involved in the tests. The distribution of the unemployed cases would lead one to suspect that the group is not homogeneous and includes both types of cases, i. e. those who are unable to understand much of the language and those who are able to comprehend but make mistakes due to inaccuracy.

Oral and Manual Pupils. The comparison between the orally taught and the manually taught deaf pupils is given in Table VI, which shows the medians at each age for the two groups of pupils. The superiority of the orally taught pupils is marked at the upper ages. Up to age 14 there seems to be little difference between the two groups. After this, however, the oral pupils show decidedly higher medians. The low medians for all the children combined, as shown in Tables III and IV, are obviously due to the generally poorer per-

[4] Cf. the performance of these same children on the Digit-Symbol with Symbol-Digit tests. Pintner and Paterson, "Learning Tests with Deaf Children." *Psychological Review Monograph Series*, Vol. XX, Whole No. 88.

TABLE VI

Comparison between the oral and manual deaf pupils. Medians at each age

		AGE									ADULT
		9	10	11	12	13	14	15	16	17	18	
Test A	Oral	1	2	2	2	2	3	7	6	9	7	9
	Manual	1	1	2	2	2	2	2	2	2	2	2
Test B	Oral	0	1	0	1	3	3	6	7	9	8	10
	Manual	0	0	0	0	0	3	3–4	2	2	4	3

formance of the manual pupils. The superior performance of the oral pupils is perhaps in part due to the greater emphasis upon language training in oral instruction, but it is without doubt also due to the fact that the more intelligent pupils are selected for oral instruction.

Age of Deafness. The influence of the age at which deafness occurred upon the ability of the pupils in this test is shown in Table VII, which gives the average number of directions correctly answered in Test A for the different ages at which deafness occurred. The first column includes all cases where the time of onset is unknown; the second those born deaf; the third those who became deaf before the first birthday, and so on. It will be seen that the congenital and unknown groups show the lowest averages. There is a decided tendency for the averages to increase the later the age of onset of deafness. Evidently the auditory experience of the child before the occurrence of deafness may be of value for his language ability. The similarity of the averages for the congenital and unknown groups suggests again, what we have pointed out in other tests,[5] namely, that a large proportion of the so-called unknown cases are in reality congenital.

[5] Pintner and Paterson, "A Comparison of Deaf and Hearing Children in Visual Memory for Digits." To appear shortly in *The Journal of Experimental Psychology.*

Relative Difficulty of the Directions. An analysis of the two tests in regard to the relative difficulty of each single direction was undertaken. Such an analysis brings out the specific difficulties of each of the groups tested and may suggest an answer to the question as to whether the language which is difficult for the deaf child is also the language which is relatively difficult for the hearing.

The relative difficulty of any one question as compared to any other can be determined for each group by the percentage of correct answers for each direction. These percentages for both tests are given in Tables VIII to XI. Each table shows the percentage of correct answers for each of the 20 directions for each of the age groups. In addition the percentages for the younger children (ages 6 to 8), and for the older children (ages 9 to 16), and for all the deaf are given, allowing comparisons between these groups. The unemployed and business-college students have been kept as groups without any division into ages. Tables VIII and IX give the results for deaf and hearing for Test A. Tables X and XI give similar results for Test B. The ranking of the questions in order of difficulty can easily be found for any age or any group from the percentages given in the tables. A cursory inspection will show that it is roughly the same for all groups at all ages, except that there seems to be a greater uniformity of the hearing groups among themselves than of the deaf as contrasted with the hearing groups.

The comparison of the relative difficulty of each direction for certain groups comes out more clearly from an inspection of the curves shown in Figures 3 and 4. The five groups compared on each test on the curves are the younger hearing, the older hearing

TABLE VII

Average number of directions in test A correctly answered. Distribution according to age at which deafness occurred

Age of deafness	Unknown	Congenital	0	1	2	3	4	5	6	7	8	9	10	11	12	13
Number of cases	41	151	21	53	44	17	11	11	5	1	1	3	4	0	2	1
Av. no. of directions correct	2.8	2.2	3.1	3.8	3.5	3.6	3.7	7.8	11.6	5.0	8.0	10.0	10.0	....	17.0	19.0

TABLE VIII

Hearing individuals. Distribution according to age of per cent correct for each direction. Test A

AGE	NO.	NUMBER OF DIRECTION																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
6	14	7	0	50	36	0	0	7	14	0	93	7	0	21	0	0	7	0	7	14	0
7	80	39	4	76	50	1	32	24	38	24	91	30	7	43	16	1	38	22	27	30	20
8	27	67	4	74	85	0	52	55	67	30	96	41	18	63	37	7	44	48	26	63	18
6 to 8	121	41	3	73	56	0.8	33	29	41	22	93	30	9	45	19	2	36	26	25	36	17
9	10	90	100	100	100	50	100	60	90	100	100	90	70	90	100	90	100	100	80	100	100
10	25	88	100	100	100	60	96	92	96	100	100	100	52	100	84	80	100	100	100	100	84
11	41	90	88	100	100	51	98	88	93	100	100	90	63	95	80	78	98	100	93	100	98
12	41	98	98	100	100	76	98	93	100	98	100	95	76	100	83	98	98	100	95	100	95
13	30	97	97	100	100	73	90	93	97	93	100	93	70	100	63	87	100	100	93	100	100
14	17	94	100	100	100	71	88	100	82	94	100	100	88	94	94	94	100	100	94	100	94
15	16	100	100	100	100	69	100	94	100	100	100	87	100	100	87	88	94	100	94	100	100
16	7	100	100	100	100	87	100	100	100	100	100	100	87	100	87	100	100	100	100	100	100
9 to 16	187	94	96	100	100	66	96	91	95	98	100	94	72	98	82	82	98	100	94	100	97
Unemployed	23	65	35	91	87	43	74	65	87	65	100	74	43	83	35	39	74	96	56	87	35
Business College	22	96	86	100	100	82	100	96	100	100	100	96	91	96	64	91	96	100	96	100	100

TABLE IX

Deaf children. Distribution according to age of per cent correct for each direction. Test A

AGE	NO.	NUMBER OF DIRECTION																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
9	24	4	0	29	4	0	4	4	4	0	61	4	4	0	0	4	0	0	0	4	0
10	38	0	0	53	0	0	0	0	3	0	74	3	0	0	0	0	0	0	0	0	0
11	38	0	0	71	3	0	3	0	0	0	63	0	5	0	0	3	3	0	3	8	0
12	34	0	0	82	3	0	3	3	3	0	65	9	12	6	0	3	9	3	3	6	0
13	35	14	0	94	20	3	6	6	9	9	71	23	14	6	3	23	20	9	9	32	6
14	27	22	11	85	15	4	7	11	22	15	74	26	19	11	4	26	22	7	11	30	15
15	31	26	3	90	26	13	13	10	16	26	71	42	35	23	3	32	42	19	26	48	10
16	47	19	4	96	19	4	13	6	15	13	64	28	19	17	4	30	30	28	19	45	11
17	33	21	12	91	27	12	18	12	15	12	64	24	21	27	6	33	30	24	12	42	18
18	21	24	14	91	19	19	19	10	14	14	71	29	38	10	0	29	43	29	24	62	24
Adult	38	34	13	86	34	8	26	34	18	37	74	47	21	42	11	47	42	37	37	61	29
All deaf	366	15	5	80	16	5	10	9	10	11	69	21	16	13	3	21	21	14	13	30	9

TABLE X

Hearing individuals. Distribution according to age of per cent correct for each direction. Test B

AGE	NO.	NUMBER OF DIRECTION																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
6	11	0	0	0	0	18	0	0	0	9	45	27	27	18	27	0	36	9	9	9	27
7	81	23	36	7	4	52	4	17	11	22	61	41	33	31	40	12	63	35	17	27	30
8	32	22	41	9	0	62	3	25	19	31	78	62	53	34	50	16	78	41	28	50	34
6 to 8	124	29	34	7	2	51	3	18	12	23	64	45	38	31	41	12	65	34	19	32	31
9	10	90	100	80	70	100	70	80	100	100	100	100	100	80	80	100	100	100	100	70	70
10	25	100	100	80	76	100	92	96	100	96	100	100	100	92	84	84	100	100	100	84	76
11	41	93	98	76	80	95	85	98	95	98	100	93	93	85	90	93	100	100	98	78	66
12	41	88	93	88	83	95	76	95	98	95	100	100	100	90	90	90	98	98	95	73	73
13	32	97	94	84	63	87	87	84	94	100	97	100	94	84	97	97	100	100	97	78	87
14	18	89	100	89	72	100	72	100	100	95	100	100	95	83	89	100	100	100	100	89	83
15	16	100	87	87	81	100	62	100	94	100	100	100	94	100	94	87	100	100	94	62	81
16	7	100	100	100	72	100	72	87	100	87	100	100	100	100	100	100	100	100	87	100	72
9 to 16	190	94	96	84	76	96	80	94	97	97	99	98	96	88	91	93	99	99	97	78	76
Unemployed	20	70	80	50	50	60	50	75	70	75	95	85	75	90	55	70	95	70	75	65	65
Business College	29	93	90	97	83	100	97	93	100	86	100	97	97	97	97	100	100	97	93	100	86

TABLE XI

Deaf children. Distribution according to age of per cent correct for each direction. Test B

AGE	NO.	NUMBER OF DIRECTION																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
9	5	0	0	20	0	0	20	20	0	0	0	0	0	0	20	0	40	0	0	0	0
10	8	0	0	0	0	0	50	12	0	0	12	0	0	0	12	0	37	12	0	0	0
11	16	0	0	6	0	6	31	12	0	0	12	6	6	0	12	0	31	6	6	0	6
12	26	0	4	0	4	0	42	19	8	8	15	8	4	4	19	0	46	4	0	4	0
13	33	9	6	12	0	6	45	24	9	15	24	18	12	9	27	0	73	15	6	3	0
14	21	10	10	43	0	14	62	43	10	33	14	10	24	14	38	5	71	14	10	14	10
15	26	15	8	46	12	8	54	58	19	23	54	35	27	4	54	27	85	27	15	12	8
16	45	18	9	22	13	9	62	44	22	31	44	31	33	7	49	13	80	18	13	11	2
17	44	5	9	41	5	11	70	41	20	25	32	18	25	11	34	16	75	18	14	5	9
18	25	12	20	68	16	16	60	56	32	28	68	28	32	8	48	16	100	16	12	12	0
Adult	40	25	15	57	7	30	50	52	27	47	47	42	37	27	67	22	87	35	32	27	12
All deaf	289	11	9	33	6	11	54	39	17	24	35	23	23	10	40	12	73	18	13	10	5

children, the deaf, the business-college students, and the unemployed. Along the abscissae the number of each direction is shown (as enumerated in Figs. 1 and 2), and along the ordinates the percentage of correct

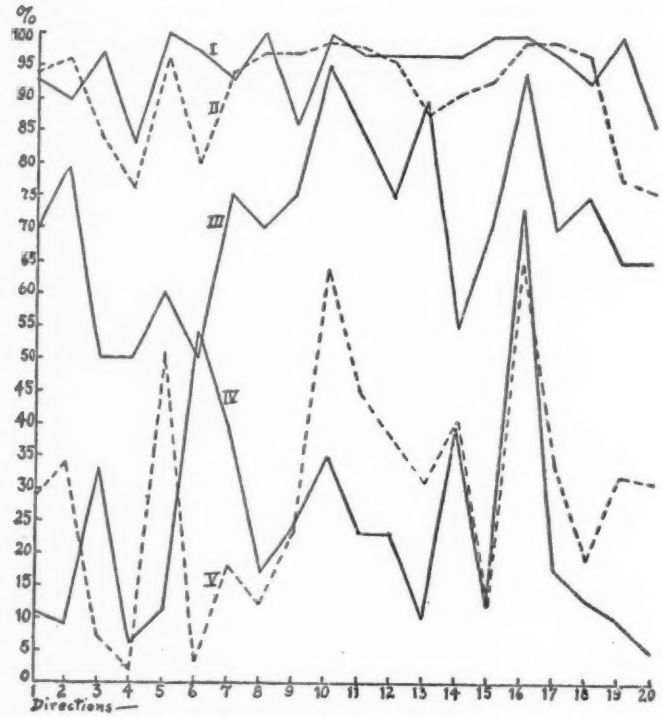


FIG. 3. DIRECTIONS TEST "A." PER CENT CORRECT

I Business College. II Hearing Children 9–16. III Unemployed. IV Deaf. V. Hearing Children 6–8.

responses is given. The curves for the deaf and the younger hearing children keep remarkably close together, showing that the difficulty of the directions is almost the same for the two groups. The curves for the business-college students and the older children

are also remarkably close together. Midway between lies the curve for the unemployed. The shape of all the curves is very similar. All show a decided tendency to rise or fall at the same point, although the

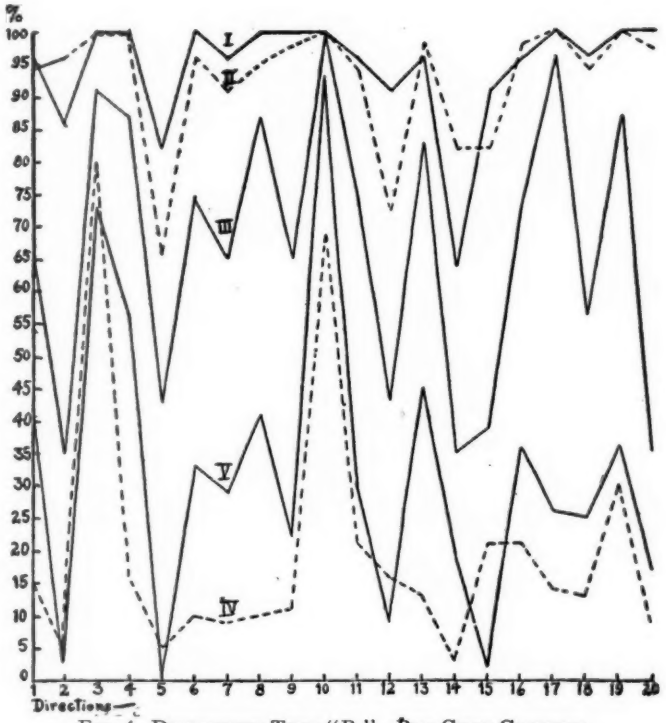


FIG. 4. DIRECTIONS TEST "B." PER CENT CORRECT

I Business College. II Hearing Children 9–16. III Unemployed. IV Deaf. V Hearing Children 6–8.

relative amount by which they rise or fall is by no means always the same.

The similarity of the curves is more marked for Test A, Figure 3, than for Test B, Figure 4. On Test A there are some few exceptions to the general

statements made above. At direction 13 the curve for the deaf drops slightly, whereas all the other curves show a decided tendency to rise. This means that direction 13 is relatively hard for the deaf, but easy for the hearing. At direction 15 the curve for the younger hearing children drops, while the other curves tend to rise. This is one of the few places at which the curve for the younger hearing children is decidedly below the curve for the deaf. On Test B there are a great many more discrepancies to be noted. At directions 3 and 6 the curve for the younger hearing children drops decidedly, whereas at these two places the curve for the deaf rises very markedly. The converse is true at directions 7 and 19, where the "deaf" curve drops while the "hearing" curve rises. These discrepancies might suggest that there are some slight differences in the language development of the deaf as contrasted with the hearing child. The three most marked discrepancies between the deaf and all the hearing curves occur in Test A, direction 13, which the deaf find relatively hard, and in Test B, directions 3 and 6, which the deaf find relatively easy. Direction 13, Test A, is, "Dot the line that has no dot over it" (See Fig. 1). In two other directions, number 8, Test A, and number 13, Test B, the word dot also occurs and in all these three cases the percentage of correct answers for the deaf is very low, owing to the fact that few of them understand the word "dot." The peculiar difficulty for the deaf of number 13, Test A, as compared with the hearing individuals might arise from the added fact that they are unfamiliar with the word "dot" used as a verb. Directions 3 and 6, Test B, which the deaf find relatively easy are both matters of school knowledge. "How many feet make a yard," and "the sum of two num-

bers," are obviously things which have been taught in school and taught in exactly the language used in the tests. The language of these directions is, therefore, relatively easier for them than the language of the other directions, as contrasted with the relative ease and difficulty of the language of the tests for the hearing individuals.

These differences between the deaf and the hearing are relatively slight and are not to be overemphasised in view of the great amount of similarity existing in the language ability of the two groups.

This latter fact may be further emphasised by the coefficients of correlation. We have correlated the degree of difficulty of the twenty directions by the Spearman Footrule method between the younger hearing and the older hearing children and arrived at a coefficient of .64 for Test A, and .43 for Test B. The correlation between the younger hearing and the deaf children gives coefficients of .54 for Test A and .38 for Test B. The younger hearing children are somewhat more similar to the older hearing children than the deaf are to the younger hearing children, but the difference is very slight. The interesting fact is that all the groups are so much alike.

In light of the close correspondence between the curves for the younger hearing children and the deaf, and of the similarity of these two curves with the other curves for hearing individuals, it would seem safe to conclude that the language development of the deaf, as far as we can judge from these two tests, is very similar to the language development of the hearing, and further that the average language ability of all the deaf children on these two tests is about equal to the ability of hearing children of the ages from 6 to 8.

The curves for the unemployed show a very marked

similarity to the curves for the hearing children. Their language ability lies somewhere between that of the younger and that of the older hearing children. The curves for the older hearing children and for the business-college students are very much alike in both tests.

Language Comprehension. The age at which the average deaf child reaches the ability to comprehend the language involved in the tests can be roughly determined from a study of Tables IX and XI. If we run down the columns of percentages for each test we may note the increase in ability to answer the direction correctly. It will be seen that some directions are never answered correctly by a third of the pupils at any specific age, e. g. directions 2, 5, 14 of Test A and many others. These are clearly beyond the ability of the deaf at all ages.

Other directions are answered by about a third or more at all ages, e. g., direction 3 of Test A, and 6, 14, 16 and perhaps 7 of Test B. These are obviously well within the ability of the deaf. Direction 3, Test A, "How many ears has a cat?" involves the very simplest language possible, using in "how many" a very common type of interrogation. Directions 6, 14, and 16 of Test B can almost, if not entirely, be comprehended without an understanding of the actual printed words. Number 6 shows two digits in the usual position of an addition sum, and probably called forth the right response in a great many cases without any comprehension of the language preceding the digits. Many papers showed a line drawn under the digits in the conventional manner and the sum written below. In the same way direction 14 shows the blank space waiting for the equal sign to be supplied, and the sign of equality is itself given among the wording of

the direction, serving doubtless as an adequate stimulus. The face without a nose in direction 16 impels the observer almost instinctively to supply the missing feature. In one paper the ear is also supplied. All the directions, therefore, that are within the ability of the deaf child at any age demand a very low degree of language ability.

A few words are necessary in regard to direction 10 of Test A, which from the percentages in Table IX would seem well within the ability of the children at all ages. Direction 10 is, "Leave this just as it is," and then follows the picture of an arrow and a target. We have credited as correct all papers where this remained untouched by the observer. Obviously this does not mean that all those who left it untouched comprehended the direction and carried it out. In the lower ages the majority certainly did not understand the language, and the surprising thing is that the percentages are not higher at all ages. It is interesting to note that this direction ranks second in order of easiness for the deaf, more children (80%) being able to answer how many feet make a yard, than to leave something alone (69%). It is obvious, therefore, that the percentages in this case do not denote ability to comprehend language.

In addition to these two groups of directions that are either not understood at any age, or are understood by almost all at all ages, we have a third group where about thirty per cent are able to answer correctly at some age above age nine. Without going into detail it would seem that ability to comprehend such language as is involved in these tests comes somewhere between the thirteenth and fifteenth year. It is about this period that most of the questions that are answered correctly by the majority of the older pupils jump from

a low to a relatively high percentage. Our data are not sufficient to warrant any general conclusions, but merely suggest the desirability of further study of the language development of the deaf child.

Characteristic Reactions of the Deaf. The most characteristic difference between the papers of the deaf and the hearing children lies in the number of wrong responses called forth by the printed directions. The deaf child will make some kind of a response more often than the hearing child, when neither of them is able to understand the language of the directions. Again and again the deaf child will cover the paper with some kind of response to every question even although he is unable to understand the language. The hearing child is more apt to leave the question alone if he fails completely to understand the language involved. His errors are mainly due to partial understanding or to carelessness. Otherwise the question is passed over. This comes out characteristically in direction 10 of Test A. Of the younger hearing children 93 per cent have left it alone; of all the deaf only 69 per cent have desisted from making some kind of a response. This is true of many other questions, although we cannot see that from the percentages as tabulated.

A perseverative tendency is noted in some papers where a number is written after each one of the directions, either the same number throughout or a sequence of numbers.

In many cases the response called forth by the direction is in the nature of an association connection with some one word of the directions. In at least two cases, the direction, "Write any word of three letters," called forth the response "postcard." Again "fish" in direction 9 of Test A gave rise to the association, "gold-fish." After directon 15, Test A, we find in

one paper, "Groydon, Boston, Mass.," obviously stimulated by the word "city" or "London." Again after direction 1 of Test B we have the response "in a cage." In other cases the connection between the response and the direction seems to lack any definite connection, as in the response "Mt. Healthy," to direction 4, Test A, or in the response, "Mr. Jones," to direction 9, Test B.

Direction 20, Test B, often calls forth the construction of a sentence. The word "sentence" acts as a cue to the common school exercise of constructing sentences. This tendency to make sentences of the words is also shown in other papers, where the child has obviously taken the test as an exercise in the construction of sentences. One child has made a sentence beginning with "I have" for each direction, utilising in each case some one word out of each of the directions.

A very common type of response among the deaf children is the copying of the printed words. A tendency to do this was found in only one of the hearing children's papers. Obviously this tendency among the deaf is due to the fact that a great part of their language instruction necessitates the constant repetition and copying of words.

CONCLUSIONS

1. These directions tests as applied to deaf and young hearing children are mainly tests of the comprehension of the language in the tests.

2. The average deaf child's ability to comprehend the language involved in these tests is about equal to that of the average hearing child between the ages of six and eight.

3. The orally taught deaf pupils show marked superiority to the manually taught pupils in the higher ages. This is probably due in large part to the greater intelligence of the former group.

4. Children who become deaf later in life show on the average a better comprehension of language than those who become deaf early or are born deaf.

5. The general language development of the deaf and hearing as measured by the ability to respond correctly to these directions seems to proceed along the same lines.

6. The deaf child seems more inclined than the hearing child to respond in some overt fashion to a situation that is not understood.

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NOTICES OF PUBLICATIONS

BELL, ALEXANDER GRAHAM. Graphical Studies of Marriages of the Deaf, Consisting of a Graphical Index of the 4471 marriages reported in Dr. Edward Allen Fay's work "Marriages of the Deaf in America," followed by a graphic presentation of the marriages that resulted in deaf offspring, with an introduction by Fred De Land, Superintendent of the Volta Bureau. The Volta Bureau: Washington, D. C. 1917. Large 4to, pp. 259.

In this remarkable work Dr. Bell has translated the most important parts of the "Tabular Statement" contained in "Appendix A" of "Marriages of the Deaf in America" from words and numbers into symbols and graphs. He thus tells "a story without words," using in their stead a kind of "visible speech"—not indeed the "Visible Speech" invented by his honored father, but something rather resembling the "visible speech" described by Dante,[1] which was more eloquent than words. The volume contains no text, except Mr. De Land's "Introduction," a table quoted from "Marriages of the Deaf in America," and a brief statement concerning the original sources of the statistics; but the rows of black balls, representing the deaf husbands and wives, the deaf relatives, and the deaf offspring in the families indicated, convey at a glance a stronger impression of the results of marriages of the deaf under certain conditions than could the most elaborate array of statistics.

In order that the impression conveyed may be correct, however, something more is requisite than a mere glance. The "Graphical Studies" themselves need to be studied. We regret that Dr. Bell did not give us, in addition to the symbolical presentation of the facts, the conclusions to

[1] . . . . esto visibile parlare,
Novello a noi, perchè qui non si trova.
Purg., x, 95.

which these facts lead. He could have done this so much better than any one else! Some of the notices of the book that we have seen indicate that the reviewers had received an erroneous impression of the deductions to be drawn from it. The data that it presents are identical with those of "Marriages of the Deaf in America," and nearly all the conclusions to be drawn from them are, it seems to us after a careful study of the symbols and graphs, exactly the same as those reached in the earlier work. The chief difference between the two books is in emphasis and method. In "Marriages of the Deaf in America" emphasis was laid upon *all* the 3078 marriages of which the results were reported, and the conclusions arrived at were duly set forth; in "Graphical Studies," though the results of all the marriages are given, emphasis is laid upon the 301 marriages that resulted in deaf offspring, and the reader is left, except for a few brief comments in Mr. De Land's "Introduction," to draw his own conclusions.

Dr. Bell's work is divided into three parts.

The first part ("Graphical Index to Fay's Marriages of the Deaf in America") presents in graphical form the following data concerning the 4471 marriages recorded: the brothers and sisters in the family of each husband and wife, including the husbands and wives themselves; the children born of each marriage; an indication whether each person was deaf, hearing, partially deaf, or not stated whether deaf or hearing; the cases in which the information received was complete, and those in which no information was received. If we eliminate from these marriages the 974 in which no information concerning offspring was reported and the 419 that took place within a year before the records were collected, from which offspring were not to be expected, leaving the 3078 marriages that were considered in "Marriages of the Deaf in America," an analysis of the symbols of this "Graphical Index" gives the following results:

Of the 3078 marriages in which one or both of the partners in marriage were deaf, 301 marriages, or 9.78 per cent, re-

sulted in deaf offspring; and of the 6783 children born from these marriages, 590 children, or 8.7 per cent were deaf.

Of the 2377 marriages in which both of the partners were deaf, 221 marriages, or 9.29 per cent, resulted in deaf offspring; and of the 5073 children born from these marriages, 431 children, or 8.5 per cent, were deaf.

Of the 599 marriages in which one of the partners was deaf and the other a hearing person, 75 marriages, or 12.52 per cent, resulted in deaf offspring; and of the 1532 children born from these marriages, 151 children, or 9.86 per cent, were deaf.

The above numbers and percentages are the same as those given in the statistical tables of "Marriages of the Deaf in America," except that the number of marriages resulting in deaf offspring is reported as 301 instead of 300, and the number of deaf children born therefrom as 590 instead of 588. This discrepancy, which affects the percentages very slightly, is due to the fact that one marriage (No. 3474), which was reported in the original returns to have produced one hearing child but no deaf offspring, and was so reckoned in the tabulations of "Marriages of the Deaf in America," was discovered, after the body of the work was printed, to have resulted in two partially deaf children. The error was corrected, with an explanatory note, in "Appendix A" of "Marriages of the Deaf in America" and the marriage is properly recorded in "Graphical Studies."

The second part ("Graphical Index Embodying Only the 301 Marriages that Resulted in Deaf Offspring") disregards the great number of marriages in the first "Graphical Index" that produced no deaf offspring, and gives concerning the 301 marriages that did result in deaf offspring the same data that are presented in the first "Graphical Index" concerning all the marriages. Here the black balls are very numerous indeed; for they bring together on six pages not only the 590 deaf children, but also the 1028 deaf brothers and sisters appearing in the families of the husbands and wives, whose symbols in the first "Graphical Index" are scattered over

98 pages. The actual sum total of the deaf brothers and sisters existing in these families is indeed somewhat less than this sum total of the black balls representing them; for in some cases there are marriage records for two or more brothers or sisters in the same family and, as all the brothers and sisters in each family appear in connection with each marriage, there is in such cases a repetition of the black balls.

In "Marriages of the Deaf in America" the brothers and sisters of the husbands and wives were not considered separately, but in connecton with other deaf relatives, for reasons there set forth. If they had been taken separately, the results of their tabulation and of a tabulation of the symbols of the "Graphical Index" would have been practically the same.

The profusion of black balls dotting the pages of the second "Graphical Index" suggests at a glance one of the most important deductions of previous investigations, namely, that marriages in which husband or wife, or both, have deaf brothers or sisters are very liable to result in deaf offspring. An analysis of the symbols confirms the correctness of this deduction:

In 197, or 65 per cent, of the 301 marriages, the husband or wife, or both, had one or more—frequently more—deaf brothers or sisters.

In 70, or 23 per cent, of the marriages, both partners had one or more deaf brothers or sisters.

In 127, or 42 per cent, of the marriages, one partner had one or more deaf brothers or sisters, while of the other partner no deaf brothers or sisters were reported.

The third and most valuable part of the work is entitled "Graphical Study of Marriages of the Deaf that have Resulted in Deaf Offspring." Here again the 301 selected marriages above mentioned are taken by themselves. A large clear graph of each of these marriages is given, which shows, in addition to the details presented in the preceding "Graphi-

cal Indexes," the parents and grandparents[2] of each husband and wife, and such of their other relatives as were reported in "Marriages of the Deaf in America." Moreover, where marriages of other members of the family and the results of such marriages were reported, these also are shown on the graphs.

In the "Graphical Study," in consequence of these additional data, the black balls are still more numerous than in the "Graphical Index" of the same marriages, and one is strongly impressed with the fact that the existence of deaf relatives is a most significant indication of a liability to deaf offspring.

We present some of the results to be derived from an analysis of the graphs.

In 228, or 77.5 per cent, of the 301 marriages resulting in deaf offspring, one or both of the partners in marriage had deaf brothers or sisters or other relatives. These 228 marriages produced 474, or 80 per cent, of the deaf children born. Probably there were also deaf relatives in many of

[2] In most of the graphs the parents and grandparents are indicated by a symbol meaning "not stated whether deaf or hearing." In many instances this is correct; but in those cases in which it was recorded in "Appendix A" of "Marriages of the Deaf in America" that there were no deaf relatives other than brothers or sisters or children, we think that, unless Dr. Bell had information that the records were incorrect, the parents and grandparents should have been indicated in the graphs as "not deaf." In a good many other cases also, while it is literally true that it was "not stated" whether the parents and grandparents were deaf or hearing, and it is properly so indicated in the graphs, it is probable that they could hear, for if they had been deaf the fact would probably have been mentioned in the marriage records and recorded in "Appendix A." In the marriage-record blanks, while the questions with regard to offspring and brothers and sisters asked specifically "How many of these were deaf? How many hearing?" etc., the questions with regard to other relatives were merely "Have you any deaf relatives other than brothers and sisters or children? If so, give relationship and names, if possible." Where parents or grandparents were not returned as deaf, therefore, it is probable, in most of the 301 marriages of the "Graphical Study," that they could hear.

the remaining 73 marriages, but they were not reported. Concerning only ten of the marriages was it reported that there were no deaf relatives, and even in these there may have been some unknown to the reporter.

The 301 marriages produced 590 deaf children, an average of 1.96 deaf children per marriage. As some of the husbands and wives were still living and still young when the statistics of "Marriages of the Deaf in America" were collected a quarter of a century ago, it is not improbable that additional deaf children have been born to them since that date. A majority of the marriages, however, were of long standing when the statistics were collected, and in these the tale of their offspring was happily complete.

About half of the 301 marriages, namely 151, resulted in one deaf child each. The remaining 150 marriages produced more than one deaf child each; namely, 80 marriages produced two deaf children each; 37, three each; 13, four each; 10, five each; 7, six each; 1 marriage produced seven, 1 eight, and 1 nine deaf children. These 439 deaf children born from 150 marriages, (an average of 2.9 deaf children per marriage) prove that in marriages where the tendency to produce deaf children exists, it often exists in a high degree.

Not all the 301 marriages, however, show the results of marriage between two deaf persons, for in nearly a quarter of them one of the partners in marriage was a hearing person. The numbers and percentages are as follows: In 221, or 73.4 per cent of the marriages, both of the partners were deaf; in 74, or 24.6 per cent of them, one of the partners was deaf and the other a hearing person; in 6, or 2 per cent of them, one of the partners was deaf and the other unreported whether deaf or hearing.

The 221 marriages in which both of the partners were deaf produced 432 deaf children, an average of 1.95 deaf children per marriage. The 74 marriages in which one of the partners was deaf and the other a hearing person produced 149 deaf children, an average of 2 deaf children per marriage. The larger average of deaf children per marriage in the lat-

ter class,[3] though the difference is slight, is contrary to expectation. It is due, of course, to the larger proportion of marriages in this class that produced more than one deaf child. For instance, the marriage producing seven deaf children, one of those producing six, and three of those producing five, were marriages in which one of the partners was a hearing person. But why should marriages of this class be more prolific in deaf children than those in which both of the partners were deaf? We should expect them to be much less so. The most reasonable explanation seems to be that in many cases the hearing partner in marriage probably belonged to a family in which there was a stronger tendency to deaf offspring than there was in the family of the deaf partner.[4] The "Graphical Studies" do not throw

[3] The average of hearing children per marriage is also larger in this class, as will appear further on.

[4] This explanation is suggested by an opinion expressed fifty-seven years ago by Dr. Harvey P. Peet and reaffirmed twenty-nine years later by Dr. Bell:

"The brothers and sisters of a deaf-mute are about as liable to have deaf-mute children as the deaf-mute himself, supposing each to marry into families that have, or each into families that have not, shown a predisposition toward deaf-dumbness."—H. P. Peet, in "List of Pupils of the New York Institution," *Annals*, vi, 235.

"It is only reasonable to assume that a tendency towards deafness exists in a family containing more than one deaf-mute, so that if hearing persons belonging to such families were to intermarry, or were to marry deaf-mutes—or if a consanguineous marriage were to take place in such a family—we would not be surprised if some of the offspring should be deaf. In the case of the American Asylum, it appears that the pupils who married hearing persons had a larger proportion of deaf children than those who married deaf-mutes. In the majority of cases that have fallen under my observation where a deaf-mute was married to a hearing person *the hearing person belonged to a family containing deaf-mutes*, and this is significant in the light of the results deduced above, especially when we remember that the late Dr. Harvey P. Peet found that the brothers and sisters of a deaf-mute are about as liable to have deaf-mute children as the deaf-mute himself, supposing each to marry into families that have, or each into families that have not, shown a predisposition toward deaf-dumbness.' "—A. G. Bell, in "Memoir upon the Formation of a Deaf Variety of the Human Race," Reprint, Washington, D. C., 1884, pp. 14 and 24.

as much light on the subject as we should desire, for it was impossible in most instances to obtain information as to whether the hearing partner in marriage had deaf relatives or not. In ten of the 74 marriages, however, the hearing partner is recorded as having at least one deaf relative and in two of these ten marriages the deaf partner is not recorded as having any. Six of the ten marriages were consanguineous marriages; the deaf relative, or one of the deaf relatives, being the other partner in marriage. Concerning only six of the 74 hearing partners was it reported that they had no deaf relatives.

The 301 marriages produced 1049 children, including both the deaf and hearing offspring, an average of 3.48 children per marriage. This average is larger than that shown for the 2343 marriages of the deaf that produced hearing offspring only, which was 2.45 children per marriage. Marriages of the deaf resulting wholly or partly in deaf offspring appear, therefore, to be more prolific than marriages of the deaf resulting in hearing offspring only. We see no reason why this should be so. It may be accounted for in part, but probably not wholly, by the circumstance that the results of the marriages that produced deaf children were more completely reported in the marriage records than those that produced hearing children only.

The 221 marriages in which both the partners in marriage were deaf produced 731 children, an average of 3.3 children per marriage; the 74 marriages in which one of the partners was deaf and the other a hearing person produced 307 children, an average of 4.1 children per marriage; the 6 marriages in which one of the partners was deaf and the other unreported whether deaf or hearing produced 11 children, an average of 1.8 per marriage. The marriages in which one of the partners was deaf and the other a hearing person, then, seem to have been more prolific than those in which both of the partners were deaf, a result for which no explanation occurs to us. That the percentage of children resulting from marriages in which one of the partners was deaf and the other unreported whether deaf or hearing was

so much less than from either of the other two classes of marriage is probably due to the circumstance that the results in this class were less fully reported in the marriage records.

Of the 1049 children born from the 301 marriages, 590, or 56 per cent, were deaf; 428, or 41 per cent, could hear; and 31, or 3 per cent, were unreported whether deaf or hearing.[5] Probably the deaf children were more fully reported than the hearing children; but the greater percentage of the former is what might have been expected from these marriages, in a large proportion of which there existed a strong tendency to produce deaf offspring.

Of the 731 children born from the 221 marriages in which both of the partners in marriage were deaf, 432, or 59 per cent, were deaf; 273, or 37 per cent, could hear; and 26, or 4 per cent, were unreported whether deaf or hearing.[5] Of the 307 children born from the 74 marriages in which one of the partners was deaf and the other a hearing person, 149, or 48.53 per cent, were deaf; 153, or 49.84 per cent, could hear; 5, or 1.63 per cent, were unreported whether deaf or hearing.[5] Of the 11 children born from the 6 marriages in which one of the partners was deaf and the other unreported whether deaf or hearing, 9, or 82 per cent, were deaf; 2, or 18 per cent, could hear. In the last of these three classes the number of hearing children were probably less fully reported in the marriage records than those of the other two classes. Comparing the percentages of the first and second classes the results are according to expectation, differing in this respect from those of the comparison of the two classes made a few paragraphs above (page 478), which considered only the number of deaf children per marriage without regard to the number of hearing children, and which showed a slightly larger proportion of deaf children per marriage born from marriages in which one of the partners was deaf and the other a hearing person than from those in which both of the partners were deaf.

[5] Most of those "unreported whether deaf or hearing" were children who died soon after their birth.

The graphs bring to our notice one significant fact concerning some of the 301 marriages, which in "Marriages of the Deaf in America" was not considered at all; namely, that in many instances deafness persists through several generations. In about fifty families[6] it is shown to have persisted in one or more branches of the family through three generations; in four families through four generations; in two families through five generations. In most cases it descends from parent to child without interruption; in a few instances it skips one generation and then reappears.

Another interesting feature of the "Graphical Study" is that in many instances the graph showing a marriage and its results shows also the results of the marriages of other members of the same family,[7] and that in these collateral marriages also deaf offspring frequently appear.

The most important deduction to be drawn from "Graphical Studies" seems to be that marriages in which one or both of the partners have deaf relatives are extremely liable to result in deaf offspring and that where this liability exists it often exists in a high degree. This was one of the conclusions of "Marriages of the Deaf in America" and the one upon which the greatest stress was laid. There it was based upon an analysis of all the 3078 marriages of which the results were reported, more than 90 per cent of which resulted in hearing offspring only; here, where the field is limited to the 301 marriages that produced deaf children, with or without hearing children also, the evidence seems still more convincing. By presenting it in such an impressive manner Dr. Bell has rendered a noteworthy service to the deaf and their friends. We know that the serious warn-

[6] It is not easy to determine precisely the number of families, for in some cases, owing to the marriages of two or more brothers or sisters, the same family appears on two or more graphs.

[7] Each of these marriages has also another graph of its own, so that the sum total of the black balls shown in all the graphs is considerably larger than the actual sum total of the deaf persons whom they represent.

ing given in Dr. Bell's "Memoir upon the Formation of a Deaf Variety of the Human Race" and in "Marriages of the Deaf in America" has had some influence in preventing marriages liable to result in deaf offspring. Now that the warning is renewed even more emphatically, we hope it will produce a still greater effect.

Does "Graphical Studies" indicate "the formation of a deaf variety of the human race" which Dr. Bell suggested in a paper presented to the National Academy of Sciences thirty-four years ago? This seems to us an academic question rather than a practical one. If members of the group of families that are liable to result in deaf offspring should persistently marry for generation after generation other members of the same group, the time would probably come when "a deaf variety of the human race" would be an accomplished fact. On the other hand, if all the members of the group—the hearing members as well as the deaf—should refrain from marriage altogether, the time would probably come when there would be scarcely any deaf people in America except those whose deafness was due to disease or accident. We do not expect that either of these extreme courses will be followed. Deaf people, in the future as in the past, will probably marry more or less as inclination prompts them, and in some instances where one or both of the partners have deaf relatives deaf offspring will probably be the result. But we have a strong hope that more and more our deaf friends will take into consideration the grave consequences that are liable to follow unwise marriages and, as Dr. E. M. Gallaudet has advised them,[8] "look carefully into the matter of 'family deafness' before their hearts become entangled with any one, and govern themselves accordingly."

[8] E. M. Gallaudet, "The Intermarriage of the Deaf, and their Education," in *Science*, 1890, vol. xvi, p. 296.

HILL, HELEN. Education of the Deaf with Special Reference to Schools in the State of New York. The Capitol, Albany, N. Y. 1916. 8vo, pp. 199.

Miss Hill has been for several years the New York State Board of Charities' Inspector of Schools for the Deaf. She is thoroughly familiar with the work of instructing the deaf and all matters relating to the proper management of public institutions. She has visited the several schools under the supervision of the Board many times, remaining several days in each school, making suggestions in a spirit of friendly co-operation, and reporting to the Board upon the conditions observed.

The present volume, prepared as an appendix to the Board's Annual Report for 1915, contains a general treatise upon the education of the deaf, with special reference to the New York schools as a group, and reports in detail concerning the individual schools. It may be read with interest and profit not only by persons connected with the New York schools but by teachers, parents, and friends of the deaf everywhere.

JONES, J. W. The Illustrated Reader for Deaf Children in Third and Fourth Year of School. Columbus, Ohio: School Printing Office. 1917. 12mo, pp. 135.

In the Ohio School great importance is properly attached to reading, as a means of acquiring language. The evening study hour, employed in most schools for the deaf in the preparation of lessons for the next day, is devoted in the Ohio School exclusively to reading. For this purpose a large variety of books prepared for hearing children, but carefully selected for the several grades of deaf children, is provided, as was fully set forth by Mr. Jones in an article published in the *Annals* three years ago (vol. lix, pp. 313–329).

Mr. Jones has had difficulty in finding ordinary books suitable for deaf children in the third and fourth grades.

This reader is intended not only to supply this lack in part, but also to help the children understand the language of other books, "develop in them an interest in reading based on understanding," and convey to them useful information. The subjects treated are of a character to interest children, the language is simple and clear, many illustrations prepared expressly for this work in the Art Department of the Ohio School are provided, definitions of new words and forms of verbs are given. The Reader is a valuable addition to the growing list of books written with special reference to the peculiar needs of deaf children.

SCHOOL ITEMS

Alabama School.—Mrs. Isabel V. Jenkins, Miss Mary E. Hagyard, Miss Katie Alcorn, Miss Mildred Lloyd, and Mr. Frederick Moore have resigned. They are succeeded by Miss Marguerite B. Osborne, from the North Carolina School at Morganton; Miss Nelda Hughes, from the Nebraska School; Miss Carrie A. Haynes, from the Ontario School; Miss Mary Eugenia Thornton, M.A., formerly a teacher in the Alabama School; and Mr. Henry J. Pulver, B.A., a recent graduate of Gallaudet College.

California School.—Miss Edith Prevost has resigned and is succeeded by Miss Nellie Roth, from the Ohio School.

Clarke School.—The fiftieth aniversary of the Clarke School was celebrated October 10, 1917, with appropriate exercises. We hope to give a report of the proceedings in a future number of the *Annals.*

Colorado School.—Dr. La Crosse has resigned to become Associate Principal of the Wright Oral School, Miss Stewart to take charge of the new primary department in the Texas School, Miss Thomas to teach a private pupil in Wyoming, and Miss Lennox to teach in the English department of the Tulsa, Oklahoma, public schools. New teachers are Miss Mary A. Burch, from the Kendall School, Miss Sara Trimble, and Miss Demma Putnam. Miss Louise Sloan and Miss Mary Lyne have returned after a year's absence.

Edinburgh Institution.—We are indebted to Rev. William Raper, of London, for the following memorial sketch:

On August 4, 1917, there passed away suddenly Edward Atlay Illingworth, F.E.I.S., O.d'A.F., for thirty-two years headmaster of the Royal Institution, Henderson Row, Edinburgh, Scotland. He had just arrived, a few days previously, in the Isle of Arran, where he hoped to spend his annual vacation with his wife and family as in former years.

E. A. Illingworth was born at Sheriff Hutton, near York, in 1861, and entered the profession in 1876, as junior teacher in the Yorkshire Institution at Doncaster under the late James Howard. In August, 1885, Mr. Illingworth was appointed headmaster of the Edinburgh Institution, following Mr. J. Bensted, who left to teach in the Wisconsin School. As a mark of appreciation of his signal success in arranging and carrying through the great International Conference of Instructors of the Deaf, held in Edinburgh in 1907, at which the American Schools were so well represented, the French Government conferred on him the distinguished order of *Officier d'Académie* with its accompanying decoration.

It was largely through Mr. Illingworth's efforts that the claims of deaf children in Scotland were recognized by the state, and he was one of the chief promoters of the scheme for the certification of teachers of the deaf, recently adopted by the Scottish Education Department. He was also an active member of the Scoto-Irish Branch of the National Union of Teachers of the Deaf, besides taking a keen interest in the proceedings of the head body, attending the annual meeting regularly held in London each March.

On the occasion of the semi-jubilee of Mr. Illingworth's headmastership in 1910, which was also singularly and happily the centenary of the founding of the school, there was a reunion of former pupils of the school, some of whom were over eighty years of age. Lord Dunedin presided over the proceedings, during the course of which Mr. and Mrs. Illingworth were presented with handsome testimonials from the adult deaf, with whom Mr. Illingworth had constantly kept in touch by means of carefully prepared lectures illustrated by limelight pictures. One of these was on his visit to the West Indies, which he took to recuperate his health after a serious illness some years ago.

Mr. Illingworth was an excellent and painstaking teacher and a clever organiser. During his term of office a headmaster's house, gymnasium, and swimming-bath were erected, and only last year the former stuffy rooms of the original building, which dated from 1825, were transformed into a grand hall and class-rooms furnished with every modern appliance. No wonder that on the eighth of August in the Dean Cemetery, Edinburgh, there stood around his grave deaf and hearing friends who deeply lamented his premature death. He leaves a widow and nine children, two of whom are serving their country abroad. There are also two surviving brothers prominent in educational work among the deaf and one, Henry, headmaster of the School for the Blind in Manchester.

Mr. J. S. Barker, headmaster of the East Anglian Institution at Gorleston, England, has been appointed headmaster of the Edinburgh Institution.

Hard-of-Hearing School.—Edward Bartlett Nitchie, Founder and President of the New York School for the Hard of Hearing, at 156 Fifth Avenue, died in the Post Graduate Hospital, October 6, 1917. Mr. Nitchie was born forty years ago in Brooklyn, and after his graduation from Amherst College in 1889 took up the study of lip-reading, being himself very deaf at the time. He wrote extensively on the subject, and was the author of several books on training for the deaf, which have been reviewed in the *Annals*. Mr. Nitchie also founded in 1911 the New York League for the Hard of Hearing to aid the deaf in various ways. He was a man of cheerful disposition and by example as well as precept did much to brighten the existence of men and women who have been afflicted with the total or partial loss of hearing in adult life.

Kendall School.—Miss Mary Editha Williams has resigned to be married to Mr. Robert Unsworth, of Akron, Ohio. She is succeeded by Miss Lilly Alberta Gwin, B.A., a graduate of the Mississippi Institution and of Gallaudet College.

Manila School.—The name of the Principal of the Manila School is now Miss Delight Rice. Miss Francisca Langman has resigned and is succeeded by Miss Adelina Alvarez. Mr. Charles M. Rice teaches the advanced class and supervises the work in carpentry and horticulture.

Michigan School.—The following teachers have resigned: Miss Rosamond Wright, Miss Margaret Cavanagh, Miss Helen Collier, and Miss Ethel M. Strozensky of the oral department; Mrs. Alice H. Perkins of the manual department; Mr. John R. Russell, printing; Mr. Alfred C. Lamb, woodworking; Mr. L. S. Brumm, farming; Mr. James Harvey, baking; Miss Amelia Brooks, assistant in domestic science; Miss Helen Denman, assistant in domestic art; and Mr. Vernon S. Birck, military training. They are succeeded by Miss Mary E. Lee, from the Indiana School; Miss Clara

R. McCoy, from the Central Institute; Miss Margaret McCall, trained at the Clarke School; Mr. Eugene May, printing; Mr. Hugo O. Dickert, woodworking and machinery; Mr. George Risk, baking; Miss Clara Roberts, domestic art; Major Jamez H. Quinn, military training.

Montreal School.—Brother J. Treffié Mercure, C.S.V., for thirty-six years a devoted and beloved teacher in the Catholic School for Boys at Montreal, P. Q., died at the Hotel Dieu in that city July 14, 1917, of cancer of the stomach, aged 56.

Mystic Oral School.—A change has been made in the administration of the Mystic Oral School. Instead of having one person as Superintendent and another as Principal, Dr. Clara M. H. McGuigan now holds both positions.

New Brunswick School.—Mr. Joseph Keating has resigned the principalship and is succeeded by Mr. Tobias Brill, late Principal of the Mystic Oral School. Miss Edith Mabel Nelson has resigned to teach in the Florida School.

New Jersey School.—Mr. Alvin E. Pope, M.A., formerly a teacher in the Nebraska School, afterwards Superintendent of Model Schools in the St. Louis Exposition of 1904 and Director of the Department of Social Economy in the San Francisco Exposition of 1915, has been appointed Superintendent.

New York Institution.—Mr. William H. Van Tassell, long Mr. Currier's right-hand man in the executive work of the Institution, has been appointed executive officer in charge, pending the selection of a new Principal.

North Carolina School.—Miss Helen Bruce Sparks, a teacher in the North Carolina School at Morganton for the

past five years, has resigned to be married to Rev. Charles Franklin Hudson, of Louisville, Kentucky.

Tailoring has been added to the list of industries for the boys.

North Dakota School.—Miss Alice H. Turner has resigned to teach in the Western Pennsylvania Institution and Miss Edna E. Davis to teach in the Central Institute. They are succeeded by Miss Lillian M. Roberts, trained at the North Carolina School, and Miss Ruth L. Sims, trained at the Indiana School. Both these ladies taught last summer in the Louisiana School.

A class in domestic science will soon be organized.

Texas School.—Miss M. J. Bones has resigned to live with her sister in Chattanooga, Miss Florence Warner to teach in the Pennsylvania Institution, and Miss Marie Abadie to be married. New teachers are Miss Stella Stewart, from the Colorado School, who is placed in charge of the primary work; Miss Jessie Webster, from the Utah School; Miss Mildred Neal, from the Oregon School; Miss Erna Webb, trained at the Central Institute; Mr. and Mrs. W. J. Tucker, from the Maryland School at Overlea; Mrs. Carrie Steagall Weakley, Miss Olivia Thomas, and Miss Fannie Johnson, former teachers of the Texas School who now return to the work.

Utah School.—Miss Geraldine De Silva, Miss Jessie Webster, Miss Ethel Thomas, Mrs. Rena B. Maycock, Miss Elizabeth DeLong, and Mr. Nephi Larson have resigned; Miss De Silva to teach in the San Francisco Day-School, Miss Webster in the Texas School, and Mrs. Maycock in the Branch Agricultural College of Utah; Miss Thomas and Miss DeLong to be married; and Mr. Larson to engage in carpentry work. The vacancies have been filled by the appointment of Miss Pearl Starr, a graduate of the school of education of the University of Utah, and teacher-in-training in the Utah School for two years; Miss Christine

Webster, from the South Dakota School; Mrs. Fannie D. Hurst, a high-school teacher of experience, who teaches English to all the advanced classes; Mrs. Elizabeth Bird, from the L. D. S. Hospital at Salt Lake City, who teaches domestic science and is dietitian; Mrs. Grace B. Overstreet, for three years house-mother, who becomes instructor of sewing and dressmaking; and Mr. William S. Parkes, a graduate of the Agricultural College of Utah, who teaches carpentry.

Western Pennsylvania Institution.—A memorial tablet in honor of Rev. Dr. John Graham Brown, the founder of the Institution, was unveiled with suitable ceremonies September 3, 1917. Addresses were made by Dr. Burt and Miss M. May Toomey and a poem written by Mr. Teegarden was recited. The tablet is the gift of the alumni. It is of bronze with a black marble background and bears this inscription:

REV. JOHN G. BROWN

1824 1904

FOUNDER OF THIS INSTITUTION
A LIFE LONG FRIEND OF THE DEAF
ERECTED BY PUPILS, GRADUATES AND
FRIENDS IN LOVING MEMORY OF HIS
UNCEASING LABOR IN THEIR BEHALF
ANNO DOMINI MCMXVII

Wright Oral School.—Edwin L. La Crosse, M.A., J.D., from the Colorado School, has been appointed Associate Principal and Miss Helen Gardner, B.A., from the Ohio School, teacher in the primary department.

MISCELLANEOUS

An Appeal to Parents.—In a paper on "The Education of the Deaf from the Viewpoint of the Educated Deaf," read at the meeting of the National Association of the Deaf held at Hartford last July, Dr. Robert Patterson, Principal of the Ohio School, made this appeal to parents of deaf children:

We know that the first question you ask the school authorities is, "Can you teach our child to talk?" This is a natural inquiry for you to make. We assure you that we sympathize with you in your desire. We want you to know that we wish every deaf child could be taught to talk and read the lips, and under the best environment, whenever the child can be benefited to the point of practicability and usefulness of the speech it learns.

But in many cases there comes a time when it is clear to the school authorities that the child cannot learn speech to the point of real usefulness. It is here that the conflict begins, and you object to a transfer to the manual department.

We appeal to you to accept the recommendation of the school authorities. They know. It is their business to know. They perhaps have kept your child in the oral department already too long for its own good out of respect to the well-known longings of your hearts that it may learn to speak, and because they have desired to give it every possible opportunity to show its capacity in learning to speak. You wrong your child when you resist the final dictum of those responsible for its education. If you will make a careful investigation of those who have been kept, under parental pressure, in the oral department until they reach young manhood and womanhood, you will not be satisfied with their speech, and neither will you be satisfied with their education.

You will then know it would have been much better to have used the manual method and given those children an education without speech, in the place of a feeble education and without speech also.

You must choose between no education and no practical speech on the one hand, and a fair education and no practical speech on the other hand.

We wish to assure you that we have no interest other than to serve you and to see your child receive the best benefits of our educational system. May you choose so wisely as not to fall into the mistake of missing the best good of your child!

Exaggeration.—Mr. Wirt A. Scott in the *Deaf Oklahoman* of October 1, 1917, quotes from an article on "Teaching the

Deaf to Visualize Speech," in *Popular Mechanics* the following statement:

> Among the twelve hundred pupils of the Parker School, one of Chicago's largest public schools, there are more than five hundred children ranging in age from five to fifteen years, who have never heard the sound of a human voice. Yet to distinguish these children from their more fortunate fellows because of any imperfection in their speech or their inability to understand the speech of others would be a difficult task.

Mr. Scott adds the following comment:

> In the first place there are probably not five hundred deaf children in all the schools of Chicago. [There were 286 according to the last January *Annals*. In the Parker School there were 106.] Next, it would be hardly possible to get together any group of deaf children none of whom had ever heard the sound of a human voice. Next, the writer has heard the voices of deaf children not only of Chicago but of the best schools in the United States and he has never heard one, born deaf, who could even approximate the speech of a hearing child. We have in our school deaf children with fairly good speech, and we believe in teaching them speech and teaching them through speech, but we do not believe in making extravagant claims or leaving false impressions upon the public, or raising false hopes in the hearts of parents.

The Society of Progressive Oral Advocates.—Dr. Max A. Goldstein, Director of the Central Institute and Editor of the *Laryngoscope*, announces in the *Volta Review* for September, 1917, the formation of a "Society of Progressive Oral Advocates," whose purpose is "to advance educational matters of interest to the deaf along purely oral principles." The society is "based on the principles of coördination [between teachers of the deaf and ear specialists] and democracy. It is the absence of coöperation and democracy," Dr. Goldstein says, "that has hampered the progress of the Convention of American Instructors of the Deaf and this also threatens the vitality of the American Association to Promote the Teaching of Speech to the Deaf." Meetings of the new Society are to be held annually, the first in St.

Louis in July, 1918. Membership is open to all persons interested in "progressive oral education." The dues are one dollar a year. The secretary is Miss Augusta Roeder, Central Institute for the Deaf, 818 S. Kings Highway, St. Louis, Missouri.

Félix Martin.—Félix Martin, a Frenchman deaf from birth, who gained high distinction as a sculptor, died January 4, 1917, aged seventy-two. One of his best-known works is the fine statue of the Abbe de l'Epée that stands in the court of honor of the National Institution at Paris, of which he was a graduate. It represents the good Abbe teaching a deaf boy to read and spell on his fingers the name *Dieu.* A picture of this statue was published in the *Annals* for July, 1880, vol. xxv, no. 3, facing page 169.

Reports Received.—We have received the following reports of schools: Halifax School, Fifty-ninth Annual, 1916; New England Industrial School, Thirty-sixth Annual, 1916; New York Institution, Ninety-eighth Annual, 1916; Ontario School, 1916; Rhode Island Institute, 1917; Rotterdam Institution, Sixty-third Annual, 1916; also the Fifth Annual Report of the Society for the Welfare of the Jewish Deaf, New York, 1916, and the Report of the [British] National Association for Oral Instruction, 1916.

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